

=> file reg

FILE 'REGISTRY' ENTERED AT 15:49:43 ON 16 JAN 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 15 JAN 2004 HIGHEST RN 638128-38-8  
DICTIONARY FILE UPDATES: 15 JAN 2004 HIGHEST RN 638128-38-8

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> file caplus

FILE 'CAPLUS' ENTERED AT 15:49:49 ON 16 JAN 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is  
held by the publishers listed in the PUBLISHER (PB) field (available  
for records published or updated in Chemical Abstracts after December  
26, 1996), unless otherwise indicated in the original publications.  
The CA Lexicon is the copyrighted intellectual property of the  
American Chemical Society and is provided to assist you in searching  
databases on STN. Any dissemination, distribution, copying, or storing  
of this information, without the prior written consent of CAS, is  
strictly prohibited.

FILE COVERS 1907 - 16 Jan 2004 VOL 140 ISS 4  
FILE LAST UPDATED: 15 Jan 2004 (20040115/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> file wpix

FILE 'WPIX' ENTERED AT 15:49:53 ON 16 JAN 2004  
COPYRIGHT (C) 2004 THOMSON DERWENT

FILE LAST UPDATED: 15 JAN 2004 <20040115/UP>  
MOST RECENT DERWENT UPDATE: 200404 <200404/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> NEW WEEKLY SDI FREQUENCY AVAILABLE --> see NEWS <<<

>>> SLART (Simultaneous Left and Right Truncation) is now  
available in the /ABEX field. An additional search field  
/BIX is also provided which comprises both /BI and /ABEX <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:  
[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf) <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE  
<http://thomsonderwent.com/coverage/latestupdates/> <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER  
'GUIDES, PLEASE VISIT:  
<http://thomsonderwent.com/support/userguides/> <<<

>>> ADDITIONAL POLYMER INDEXING CODES WILL BE IMPLEMENTED FROM  
DERWENT UPDATE 200403.  
THE TIME RANGE CODE WILL ALSO CHANGE FROM 018 TO 2004.  
SDIS USING THE TIME RANGE CODE WILL NEED TO BE UPDATED.  
FOR FURTHER DETAILS: <http://thomsonderwent.com/chem/polymers/> <<<

=> file wtextiles

FILE 'WTEXTILES' ENTERED AT 15:50:02 ON 16 JAN 2004  
COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE LAST UPDATED: 16 JAN 2004 <20040116/UP>  
FILE COVERS 1970 TO DATE.

=> file textiletech

FILE 'TEXTILETECH' ENTERED AT 15:50:09 ON 16 JAN 2004  
COPYRIGHT (C) 2004 Inst. of Textile Technology

FILE LAST UPDATED: 12 SEP 2003 <20030912/UP>  
FILE COVERS 1978 TO DATE.

THIS FILE IS CURRENTLY NOT BEING UPDATED.

=> file jicst

FILE 'JICST-EPLUS' ENTERED AT 15:50:15 ON 16 JAN 2004  
COPYRIGHT (C) 2004 Japan Science and Technology Agency (JST)

FILE COVERS 1985 TO 12 JAN 2004 (20040112/ED)

KOROMA EIC1700

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

=> d que

L1	1	SEA FILE=CAPLUS ABB=ON	PLU=ON	1999:467977/AN
L2	12	SEA FILE=REGISTRY ABB=ON	PLU=ON	(10043-01-3/BI OR 10045-89-3/BI OR 11115-92-7/BI OR 113957-80-5/BI OR 1310-14-1/BI OR 21645-51-2/BI OR 24623-77-6/BI OR 25417-20-3/BI OR 540-69-2/BI OR 57-13-6/BI OR 64-18-6/BI OR 7664-41-7/BI)
L3	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	IRON OXIDE HYDROXIDE AND L2
L4	1	SEA FILE=REGISTRY ABB=ON	PLU=ON	ALUMINUM OXIDE HYDROXIDE AND L2
L6	51163	SEA FILE=CAPLUS ABB=ON	PLU=ON	WATER(5A) (FILTER? OR FILTRA?)
L7	7809	SEA FILE=CAPLUS ABB=ON	PLU=ON	TEXTILE?(5A) COAT?
L8	1769	SEA FILE=CAPLUS ABB=ON	PLU=ON	L3 OR IRON OXIDE HYDROXIDE OR FE(W)O(W)OH
L9	1943	SEA FILE=CAPLUS ABB=ON	PLU=ON	L4 OR (ALUMINUM OR ALUMINIUM) (4A) OXIDE HYDROXIDE OR AL(W)OH(W)O
L10	3172	SEA FILE=CAPLUS ABB=ON	PLU=ON	L4 OR (ALUMINUM OR ALUMINIUM) (4A) OXIDE (3A) HYDROXIDE OR AL(W)OH(W)O
L11	3176	SEA FILE=CAPLUS ABB=ON	PLU=ON	L9 OR L10
L12	2381	SEA FILE=CAPLUS ABB=ON	PLU=ON	L3 OR IRON OXIDE (4A) HYDROXIDE OR FE(W)O(W)OH
L13	2381	SEA FILE=CAPLUS ABB=ON	PLU=ON	L8 OR L12
L14	272	SEA FILE=CAPLUS ABB=ON	PLU=ON	GEOTHITE
L15	2649	SEA FILE=CAPLUS ABB=ON	PLU=ON	L13 OR L14
L16	140	SEA FILE=CAPLUS ABB=ON	PLU=ON	L15 AND L11
L17	1	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND L7
L18	5	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND L6
L19	6	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND (TEXTILE? OR FIBER? OR FIBRE? OR FABRIC?)
L20	1	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND L1
L21	12	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND (FILT? OR ULTRAFILTER? OR SCREEN? OR SIEVE?)
L22	4	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND (BACTER? OR ANTIBACT? OR BACTERICIDA?)
L23	2	SEA FILE=CAPLUS ABB=ON	PLU=ON	L16 AND TEXTILE? (5A) (COAT? OR SURFACE? OR LAYER? OR SUPERFIC?)
L24	19	SEA FILE=CAPLUS ABB=ON	PLU=ON	(L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23)
L33	2	SEA FILE=WTEXTILES ABB=ON	PLU=ON	(ALUMINUM OR ALUMINIUM) (4A) OXIDE (3A) HYDROXIDE OR AL(W)OH(W)O
L34	42074	SEA FILE=WPIX ABB=ON	PLU=ON	(ALUMINUM OR ALUMINIUM) (5A) OXIDE OR AL(W)OH(W)O
L35	25371	SEA FILE=WPIX ABB=ON	PLU=ON	IRON(5A) OXIDE OR FE(W)O(W)OH
L36	3914	SEA FILE=WPIX ABB=ON	PLU=ON	L34 AND L35
L37	69891	SEA FILE=WPIX ABB=ON	PLU=ON	(TEXT? OR FABRIC? OR CLOTH?) (5A) (COAT? OR SURFAC? OR SUPERFIC? OR LAYER)
L38	23	SEA FILE=WPIX ABB=ON	PLU=ON	L37 AND L36
L40	5673	SEA FILE=JICST-EPLUS ABB=ON	PLU=ON	IRON(5A) OXIDE OR FE(W)O(W)OH

L41 19652 SEA FILE=JICST-EPLUS ABB=ON PLU=ON (ALUMINUM OR ALUMINIUM) (5A)  
 )OXIDE OR AL(W)OH(W)O  
 L42 685 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L40 AND L41  
 L44 15 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L42 AND (TEXTILE? OR  
 FABRIC? OR CLOTH?)  
 L45 13 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L42 AND (FILT? OR SCREEN  
 OR PURIF?)  
 L48 28 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L44 OR L45  
 L53 3 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L48 AND (TEXTILE OR  
 FABRIC OR CLOTHES)  
 L55 9 SEA FILE=TEXTILETECH ABB=ON PLU=ON (IRON AND (ALUMINIUM OR  
 ALUMINUM) (5A)OXIDE?)  
 L56 4 SEA FILE=TEXTILETECH ABB=ON PLU=ON (TEXTILE? OR FABRIC OR  
 CLOTHES) AND L55  
 L57 1 SEA FILE=TEXTILETECH ABB=ON PLU=ON L56 AND (FILT? OR SCREEN?  
 ANTIBACT? OR BACTERIC?)  
 L58 47 DUP REM L24 L33 L38 L53 L57 (1 DUPLICATE REMOVED)

=> d ti 1-47

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS, WTEXTILES, WPIX, JICST-EPLUS,  
 TEXTILETECH' - CONTINUE? (Y)/N:y

L58 ANSWER 1 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

TI High-strength iron oxide-chromium oxide-based brown pigments with  
 excellent weathering resistance

L58 ANSWER 2 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

TI Surface modification of phase change materials for increased mechanical  
 stability

L58 ANSWER 3 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

TI Contaminant degrading composition for protection against and/or  
 decontamination of contaminants, e.g. warfare agents, comprises  
 polyoxometalate/cationic silica material.

L58 ANSWER 4 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

TI Embedded pigments useful in ceramic, textile, catalysts, cosmetic and in  
 plastic- or rubber-materials industry, consist of labile chromophore  
 englobed in coating of refractory and transparent material formed by  
 nanoparticles.

L58 ANSWER 5 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

TI System for applying polyurethane coating to polyolefin floor tile,  
 comprises conveyor, heater, plasma generator disposed and applicator.

L58 ANSWER 6 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

TI Simultaneous oxidation: coagulation using immersed membranes for the  
 removal of dissolved organics and iron and manganese

- L58 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Adsorption container and iron oxide adsorber
- L58 ANSWER 8 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Multi-layer reaction mixtures and apparatuses for delivering a volatile component via a controlled exothermic reaction
- L58 ANSWER 9 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Foam composition for adhesive tape, contains surface-modified nanoparticles disposed in vehicle and each having specified particle diameter.
- L58 ANSWER 10 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Fire-resistant composite panel, for interior materials for cars, comprises substrate **layer** of woven or nonwoven **fabric** impregnated or **coated** with resin compound and rear layer of aluminum sheet or galvanized steel plate.
- L58 ANSWER 11 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Fire-resistant panel for walls of washrooms and kitchens, has woven or non-woven fabric of inorganic fiber, or paper as substrate which is impregnated or coated with compound containing loess and thermosetting resin.
- L58 ANSWER 12 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Recording medium, i.e., **surface** modifying inkjet ink, for printing **fabrics**, comprises nanoparticles of predetermined particle sizes.
- L58 ANSWER 13 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Composite metal-type hollow tube has composite material layer consisting of ceramic and metal compounds whose concentrations vary gradually with respect to each other.
- L58 ANSWER 14 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI New comb polymer is useful in e.g. coating material compositions comprises dispersible organic or inorganic pigment particles.
- L58 ANSWER 15 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Unit dose wash cycle fabric softening composition uses treated montmorillonite-containing clay as active softening ingredient.
- L58 ANSWER 16 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Agent for removing salt deposits from the body and/or regeneration, for external application, preferably on underclothing, contains argillaceous earth powder, sea salt, minerals, algae and ethereal oil.
- L58 ANSWER 17 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI **Fabrication** of dielectric **coated** metal flakes involves forming stack of dielectric coated metal layers comprising lower and upper dielectric layers, reflector layer, dissolving the release layers and fragmenting.

- L58 ANSWER 18 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI New solid gel membrane useful in electrochemical devices e.g. metal/air, Zn/MnO<sub>2</sub>, Ni/Cd, smart windows and flat panel displays comprises an ionic species within the gel solution phase.
- L58 ANSWER 19 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Nonwoven abrasive articles useful in finishing and leveling application has a rebulkable nonwoven web with a continuous sheet-like abrasive coating bonded to its first major surface.
- L58 ANSWER 20 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Thermal insulating sheet for use e.g. in sunblinds, sunshades and greenhouse shading has a coating with high solar reflection and high thermal emission on one side and a coating with low thermal emission on the other.
- L58 ANSWER 21 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Recording material for production of lithographic printing plates comprises a base, a ceramic coating containing **aluminum oxide** with a silicate compound as binder, and a light-sensitive layer.
- L58 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
TI **Textile surface coatings** of iron oxide and aluminum oxide
- L58 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Alkaline batteries, alkaline battery separators, and their manufacture
- L58 ANSWER 24 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI **Filter** paper for purification of **water**
- L58 ANSWER 25 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Abrasive articles for abrading a wide range of hard materials.
- L58 ANSWER 26 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Glass composition of substrate for magnetic disk or magneto-optical disk - comprises **oxide(s)** of calcium, **aluminium**, silicon, manganese, barium, strontium, zinc, titanium, yttrium, lanthanum, iron, chromium, etc..
- L58 ANSWER 27 OF 47 WORLD TEXTILES COPYRIGHT 2004 Elsevier Science B.V. on STN  
TI Textile surface coatings of iron oxide and aluminium oxide
- L58 ANSWER 28 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Nanostructured oxides and hydroxides and methods for their synthesis
- L58 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Aluminum hydroxide and silica from kaolinite-group clay minerals

- L58 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Monitoring raw water quality and adjustment of treatment processes - experiences at Wahnbach Reservoir
- L58 ANSWER 31 OF 47 TEXTILETECH COPYRIGHT 2004 Inst. of Textile Technology on STN  
TI Microgels, **Filter** Index and End Breakage Rate of Polyamide 6.
- L58 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility
- L58 ANSWER 33 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Vibration-proof rubber sheet wrapped round compressor - comprises nonwoven **fabric coated** on one side with pressure sensitive adhesive, attached to butyl rubber base containing paraffinic or naphthenic oil.
- L58 ANSWER 34 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Brick coloured camouflage pigment formulation - containing anthraquinone black, **iron oxide** pigments, titanium di **oxide** and **aluminium** hydroxide silicate.
- L58 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Laboratory investigations on the role of sediment surface and groundwater chemistry in transport of **bacteria** through a contaminated sandy aquifer
- L58 ANSWER 36 OF 47 WORLD TEXTILES COPYRIGHT 2004 Elsevier Science B.V. on STN  
TI Dyed mixed knit fabric and method for its manufacture
- L58 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Manufacture of iron magnetic powder
- L58 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Permeable porous mineral membranes
- L58 ANSWER 39 OF 47 JICST-Eplus COPYRIGHT 2004 JST on STN  
TI Development of ladle arc refining process.
- L58 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
TI The effect of inorganic particulates on the ASV signals of cadmium, lead, and copper
- L58 ANSWER 41 OF 47 JICST-Eplus COPYRIGHT 2004 JST on STN  
TI Corrosion of basic bricks by various secondary steelmaking slags.
- L58 ANSWER 42 OF 47 JICST-Eplus COPYRIGHT 2004 JST on STN  
TI Red clay dyeing test.

L58 ANSWER 43 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
 TI Colouring and rust-preventive adhesive film production - by coating one side of e.g. nonwoven fabric with adhesive containing metal (salt) powder and printing other side with decorative pattern.

L58 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Fire-resistant building materials

L58 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Stable iron oxide pigment

L58 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 TI Heat-stabilized iron oxide pigments for poly(vinyl chloride)

L58 ANSWER 47 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
 TI Exothermal flux material for continuous casting process - contains silica and sodium mon oxide, Gp-I metal nitrate, iron oxide, aluminium (alloy) and/or calcium (alloy) and fluorspar.

=> d all 1-47 l58

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS, WTEXTILES, WPIX, JICST-EPLUS, TEXTILETECH' - CONTINUE? (Y)/N:y

L58 ANSWER 1 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:76858 CAPLUS  
 DN 138:123962  
 ED Entered STN: 31 Jan 2003  
 TI High-strength iron oxide-chromium oxide-based brown pigments with excellent weathering resistance  
 IN Loucka, William Gerald; Gall, Mark Edward; Richardson, John Gilbert  
 PA Engelhard Corporation, USA  
 SO PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C09C001-22  
 ICS C09C001-24; C09C001-34  
 CC 42-6 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003008504	A1	20030130	WO 2002-US22254	20020711
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				



UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

US 2003027911 A1 20030206 US 2001-907264 20010717

US 6579356 B2 20030617

PRAI US 2001-907264 A 20010717

AB A brown pigment composition having excellent resistance to weathering comprises from 30 to 80% of iron oxide, from 5 to 50% of chromium oxide, and from 2.5 to 50% of one or more alumina and/or silica components. The brown pigment composition is produced by heating the component mixture to temperature from

650 to 1,300° for time periods from 1 to 5 h. The brown pigment can be used in paints, inks and plastic compns. Thus, a brown pigment composition was produced by calcination of a mixture of chromium oxide (67.62), yellow iron oxide (262.5), aluminum hydroxide (116.93) and silica (77.95 g) at 800° for 3 h.

ST weathering resistant iron chromium oxide brown pigment prodn

IT Synthetic fibers

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(aluminum oxide-silica; in high-strength iron oxide-chromium oxide-based brown pigments with excellent weathering resistance)

IT Pigments, nonbiological

(brown; high-strength iron oxide-chromium oxide-based brown pigments with excellent weathering resistance)

IT Inks

Paints

(high-strength iron oxide-chromium oxide-based brown pigments for production of)

IT Aluminosilicates, uses

Bentonite, uses

Kaolin, uses

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(in high-strength iron oxide-chromium oxide-based brown pigments with excellent weathering resistance)

IT Acrylic polymers, uses

Polyamides, uses

Polycarbonates, uses

Polyesters, uses

Polyolefins

Polyurethanes, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(plastic composition base; plastic compns. containing high-strength iron oxide-chromium oxide-based brown pigments)

IT Plastics, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material

use); USES (Uses)

(plastic compns. containing high-strength iron oxide-chromium oxide-based brown pigments)

IT 1332-37-2, Iron oxide, uses 11118-57-3, Chromium oxide 51274-00-1, Yellow iron oxide

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(high-strength iron oxide-chromium oxide-based brown pigments with excellent weathering resistance)

IT 1318-93-0, Montmorillonite, uses 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 12068-50-7, Halloysite 12173-60-3, Illite 12174-11-7, Attapulgite 21645-51-2, Aluminum hydroxide, uses

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(in high-strength iron oxide-chromium oxide-based brown pigments with excellent weathering resistance)

IT 9003-53-6, Polystyrene 9004-34-6D, Cellulose, ethers and esters 25014-41-9, Polyacrylonitrile

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(plastic composition base; plastic compns. containing high-strength iron oxide-chromium oxide-based brown pigments)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1993, V017(303), PC-1069
- (2) Dainichiseika Color; JP 05024848 A 1993 CAPLUS
- (3) Gaedcke, H; US 4643772 A 1987 CAPLUS
- (4) Modly, Z; US 4624710 A 1986 CAPLUS

L58 ANSWER 2 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:872310 CAPLUS

DN 139:366875

ED Entered STN: 07 Nov 2003

TI Surface modification of phase change materials for increased mechanical stability

IN Glausch, Ralf

PA Merck Patent GmbH, Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C09K005-02

ICS C09D005-26

CC 48-5 (Unit Operations and Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10218977	A1	20031106	DE 2002-10218977	20020427
	WO 2003093391	A1	20031113	WO 2003-EP3326	20030331
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,  
 UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,  
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
 GW, ML, MR, NE, SN, TD, TG

PRAI DE 2002-10218977 A 20020427

- AB Phase change materials (PCM), e.g., paraffins, inorg. salts or hydrated salts, are provided with  $\geq 1$  surface covering layer selected from layer A and layer B, where layer A consists of  $\geq 1$  inorg. substance (i.e. oxides, oxide hydrates, hydroxides and OH-containing salts) and layer B consists of  $\geq 1$  coupling reagent, e.g., organic silanes, for chemical binding an OH group on the PCM with the support or capsular material. The covering layer enhances the chemical or adsorptive binding between the PCM and the support surface, allowing improved heat exchange. Manufacturing processes are described for the surface-modified PCM and its use with support media.
- ST phase change material mech stability
- IT Alkanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (C20-45; surface modified phase change materials with increased mech. stability)
- IT Acrylic polymers, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (capsules; surface modified phase change materials with increased mech. stability)
- IT Nonwoven fabrics  
 (fleeces; surface modified phase change materials with increased mech. stability)
- IT Oxides (inorganic), uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (hydrates; surface modified phase change materials with increased mech. stability)
- IT Salts, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (hydroxy-; surface modified phase change materials with increased mech. stability)
- IT Solvents  
 (nonpolar; surface modified phase change materials with increased mech. stability)
- IT Adhesives  
 Capsules  
 Paints  
 Phase change materials  
**Textiles**  
 (surface modified phase change materials with increased mech. stability)
- IT Alcohols, uses  
**Fibers**

Plastics, uses  
Polymers, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Hydroxides (inorganic)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Nitrates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Oxides (inorganic), uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Phosphates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Polysilanes  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Quaternary ammonium compounds, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Silanes  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Sulfates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Titanates  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Zirconates  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech. stability)

IT Aluminates  
RL: TEM (Technical or engineered material use); USES (Uses)  
(titano-, zircono-; surface modified phase change materials with increased mech. stability)

IT 1760-24-3, N-2-Aminoethyl-3-aminopropyl(trimethoxy)silane  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Dynasilan DAMO; surface modified phase change materials with increased

- mech. stability)
- IT 2530-83-8, Z 6040  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Dynasilan GLYMO; surface modified phase change materials with increased mech. stability)
- IT 2530-85-0, 3-Methacryloxypropyl(trimethoxy)silane  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Dynasilan MEMO; surface modified phase change materials with increased mech. stability)
- IT 9002-86-2, Polyvinylchloride  
RL: NUU (Other use, unclassified); USES (Uses)  
(capsules; surface modified phase change materials with increased mech. stability)
- IT 64-17-5, Ethanol, uses 1310-73-2, Sodium hydroxide, uses 7647-01-0, Hydrogen chloride, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(surface modified phase change materials with increased mech. stability)
- IT 1067-25-0, P0810 1314-23-4, Zirconia, uses 1344-09-8, Sodium waterglass 1344-28-1, Alumina, uses 1345-13-7, Cerium trioxide 2296-14-2, Dioctylammonium chloride 2486-84-2 2486-85-3, Didodecylammonium chloride 7429-90-5D, **Aluminum, oxides, oxide hydrates or hydroxides** 7439-89-6D, **Iron, oxides, oxide hydrates or hydroxides** 7439-92-1D, Lead, oxides, oxide hydrates or hydroxides 7439-96-5D, Manganese, oxides, oxide hydrates or hydroxides 7440-02-0D, Nickel, oxides, oxide hydrates or hydroxides 7440-21-3D, Silicon, oxides, oxide hydrates or hydroxides 7440-24-6D, Strontium, oxides, oxide hydrates or hydroxides 7440-28-0D, Thallium, oxides, oxide hydrates or hydroxides 7440-31-5D, Tin, oxides, oxide hydrates or hydroxides 7440-32-6D, Titanium, oxides, oxide hydrates or hydroxides 7440-33-7D, Tungsten, oxides, oxide hydrates or hydroxides 7440-39-3D, Barium, oxides, oxide hydrates or hydroxides 7440-45-1D, Cerium, oxides, oxide hydrates or hydroxides 7440-47-3D, Chromium, oxides, oxide hydrates or hydroxides 7440-48-4D, Cobalt, oxides, oxide hydrates or hydroxides 7440-50-8D, Copper, oxides, oxide hydrates or hydroxides 7440-62-2D, Vanadium, oxides, oxide hydrates or hydroxides 7440-66-6D, Zinc, oxides, oxide hydrates or hydroxides 7440-67-7D, Zirconium, oxides, oxide hydrates or hydroxides 7440-69-9D, Bismuth, oxides, oxide hydrates or hydroxides 7440-70-2D, Calcium, oxides, oxide hydrates or hydroxides 7440-74-6D, Indium, oxides, oxide hydrates or hydroxides 7631-86-9, Silica, uses 7631-99-4, Sodium nitrate, uses 7699-41-4, Silicic acid H<sub>2</sub>SiO<sub>3</sub> 7757-79-1, Potassium nitrate, uses 7757-82-6, Sodium sulfate, uses 7784-13-6, Aluminum chloride hexahydrate 7790-69-4, Lithium nitrate 10081-30-8 10193-36-9, Silicon hydroxide Si(OH)<sub>4</sub> 13446-18-9, Magnesium nitrate hexahydrate 13477-39-9, Calcium metaphosphate Ca(PO<sub>3</sub>)<sub>2</sub> 13822-56-5 14475-38-8, Silanol 17339-01-4 18282-10-5, Tin dioxide 18618-55-8 22377-07-7 22377-08-8, Didodecylammonium nitrate 24447-58-3 24447-61-8, Didecylammonium bromide 24447-63-0, Didodecylammonium bromide **24623-77-6, Aluminum oxide hydroxide** 43134-22-1 57842-16-7, Propanoic acid, compound with N-dodecyl-1-dodecanamine (1:1)

97014-47-6 136511-02-9, Manchem C 619671-11-3 619671-14-6  
619671-16-8 619671-18-0 619671-21-5 619671-23-7 619671-24-8  
619671-25-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(surface modified phase change materials with increased mech.  
stability)

L58 ANSWER 3 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2004-042412 [04] WPIX

DNN N2004-034282 DNC C2004-017341

TI Contaminant degrading composition for protection against and/or  
decontamination of contaminants, e.g. warfare agents, comprises  
polyoxometalate/cationic silica material.

DC A97 E19 E37 K02 P34

IN HILL, C L; OKUN, N

PA (UYEM-N) UNIV EMORY

CYC 102

PI WO 2003094977 A2 20031120 (200404)\* EN 34p A61L000-00

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS  
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT  
RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA  
ZM ZW

ADT WO 2003094977 A2 WO 2003-US14375 20030505

PRAI US 2002-377740P 20020503

IC ICM A61L000-00

AB WO2003094977 A UPAB: 20040115

NOVELTY - Contaminant degrading composition comprises polyoxometalate  
(POM)/cationic silica material.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) material for degrading a contaminant comprising topical carriers,  
**coatings**, powders or **fabrics** material. The material  
includes the composition;

(2) degrading contaminant comprising providing the material,  
contacting the material with the contaminant in the presence of oxidizer,  
and degrading the contaminant through a reaction of contaminant,  
composition and oxidizer.

USE - For protection against and/or decontamination of contaminants,  
e.g. warfare agents.

Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: A12-T03D2; E05-G; E05-H; E07-D04C; E10-A15; E10-B04D2; E10-C04L1;  
E10-D01D; E10-E03L; E10-H01A; E10-H01B; E10-H04; E10-J02B4; E11-Q02;  
E31-B03D; E31-F01B; E31-L; E31-N05D; E31-P02D; E32-A02; K02-A

L58 ANSWER 4 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2003-833410 [77] WPIX

DNC C2003-234382

TI Embedded pigments useful in ceramic, textile, catalysts, cosmetic and in

KOROMA EIC1700

plastic- or rubber-materials industry, consist of labile chromophore englobed in coating of refractory and transparent material formed by nanoparticles.

DC A60 D21 E31 F06 G01 J04 L01 L02  
IN BALDI, G; BARZANTI, A; BITOSSO, M  
PA (COLO-N) COLOROBIA ITAL SPA  
CYC 102

PI WO 2003076525 A1 20030918 (200377)\* EN 15p C09C003-06  
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS  
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT  
RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA  
ZM ZW

ADT WO 2003076525 A1 WO 2003-EP2282 20030306

PRAI IT 2002-FI39 20020308

IC ICM C09C003-06  
ICS C09C001-00

AB WO2003076525 A UPAB: 20031128

NOVELTY - Embedded pigments consist of labile chromophore embedded in a shell of refractory and transparent material consisting of aggregate nanoparticles adhering to the surface of the labile chromophore.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) The process for the preparation of the nanoparticles in which:

(i) the salts of the desired metals are added to a known volume of alcohol;

(ii) the solution is heated under stirring to completely solubilize the salts;

(iii) water is added to facilitate hydrolysis and the solution is heated to a temperature greater than 150 deg. C; and

(iv) the suspension is left to cool and possibly centrifuged and the precipitate is collected, washed and dried;

(2) Refractory and transparent oxides in the form of nanometric particles chosen from zirconium oxide (ZrO<sub>2</sub>), aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), tin oxide (SnO<sub>2</sub>), zirconium silicate (ZrSiO<sub>4</sub>), silica (SiO<sub>2</sub>), titanium oxide (TiO<sub>2</sub>), cerium oxide (CeO<sub>2</sub>), or zinc oxide (ZnO).

USE - The invention is used for ceramic applications at high temperatures, for application in the textile field, for coating of surfaces in porcelain stoneware or non-ceramic substrates, and in the catalysts, cosmetic and in the plastic-, rubber-materials industry (claimed).

ADVANTAGE - The invention enables exploitation of the coloring capacities of thermolabile chromophores.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A08-E02; D08-B; E31-F05; E31-G; E31-P01; E31-P03; E31-P05A; E34; E35;  
F03-F17; G01-A02; G01-A10; G01-A12; J04-E04; L01-A03B; L02-G04

L58 ANSWER 5 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

KOROMA EIC1700

AN 2003-644745 [61] WPIX  
DNN N2003-512882 DNC C2003-176169  
TI System for applying polyurethane coating to polyolefin floor tile, comprises conveyor, heater, plasma generator disposed and applicator.  
DC A17 A25 A32 A93 P42 X25  
IN CARLING, J D  
PA (CARL-I) CARLING J D; (SPOR-N) SPORT COURT INC  
CYC 1  
PI US 2003068447 A1 20030410 (200361)\* 11p B05D003-02  
US 6562414 B2 20030513 (200361) C08F002-46  
ADT US 2003068447 A1 US 2001-975715 20011010; US 6562414 B2 US 2001-975715 20011010  
PRAI US 2001-975715 20011010  
IC ICM B05D003-02; C08F002-46  
ICS B05D003-06; C23C014-00; C23C016-00  
AB US2003068447 A UPAB: 20030923  
NOVELTY - System for applying polyurethane coating to polyolefin floor tile comprises conveyor (92) for moving polyolefin floor tile; heater (96) adjacent to conveyor for heating tile top surface; plasma generator (98) adjacent to conveyor and subsequent to heater for exposing heated surface to electric arc plasma; and applicator (116) adjacent to conveyor and subsequent to plasma generator for coating polyurethane on treated surface.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) method for applying polyurethane coating to polyolefin floor tile, which involves increasing dyne level of top surface by exposing top surface of floor tile to electric arc plasma; and

(2) floor tile, which comprises injection molded thermoplastic floor tile, a region of increased energy on top surface of floor tile and polyurethane coating applied to the increased energy region.

USE - For applying polyurethane protective coating on polyethylene and polypropylene, nylon and poly vinylchloride, floor tiles for use in athletic arenas, such as basketball courts, tennis and racquetball courts.

ADVANTAGE - The system improves the bonding between coating or decoration to polyolefin floor tiles. The system treats large or oddly shaped, stamped or rolled portions with **textured surfaces** using small, simple and easily movable equipment. The system increases the surface energy of polymers for promoting bonding and avoids dissolution of polymer, when exposed to harmful chemicals. The system treats equally and inexpensively all surface area of components having variable size and shape without using vacuum chamber or other device of fixed size.

DESCRIPTION OF DRAWING(S) - The figure shows the semi-schematic diagram of an assembly line manufacturing process for producing coated floor tiles.

Coatings 80,82

Conveyor 92

Heaters 96,114

Plasma generator 98

Applicators 116,134

Rollers 118,120



Lapse time spaces 128,138

Ultraviolet light systems 130,136

Dwg.3/5

FS CPI EPI GMPI

FA AB; GI

MC CPI: A04-G01D; A05-G01E1; A11-B05A; A11-C04E; A12-F01A; A12-R03  
EPI: X25-A04

L58 ANSWER 6 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:535720 CAPLUS

DN 139:249864

ED Entered STN: 14 Jul 2003

TI Simultaneous oxidation: coagulation using immersed membranes for the removal of dissolved organics and iron and manganese

AU Singh, M.; Kendrick, S.; Best, G.; Painchaud, C.; Crawford, S.; Bach, D.  
CS ZENON Environmental Inc., Oakville, ON, Can.

SO Maximizing the Resources: Solutions for Pure and Plentiful Water, Membrane Technology Conference Proceedings, Atlanta, GA, United States, Mar. 2-5, 2003 (2003), 783-801 Publisher: American Water Works Association, Denver, Colo.

CODEN: 69EABO; ISBN: 1-58321-275-2

DT Conference; (computer optical disk)

LA English

CC 61-5 (Water)

Section cross-reference(s): 10

AB During the last decade, application of microfiltration and ultrafiltration (MF/UF) membrane systems for municipal potable water purification has become increasingly prevalent. This is attributed to the combination of increasingly stringent water quality regulations and increased cost competitiveness of membrane systems relative to conventional treatment technol. Due to the impending Long-Term 2 Enhanced Water Treatment Rule (LT2ESWTR), many utilities have begun evaluating their water sources to determine whether or not they are likely to require addnl. log removal of Cryptosporidium. UF membranes act as a pos. barrier to pathogens, e.g., Giardia and Cryptosporidium, allowing them to achieve higher log removals than conventional treatment systems. Concurrent with the LT2ESWTR, USEPA is also proposing a Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR), which would further limit the allowable concns. of trihalomethanes and haloacetic acids. Enhanced coagulation was identified as the best available technol. to meet requirements of the D/DBP Stage 1 and Stage 2 Rules for total organic C (TOC) reduction and removal of disinfection byproduct precursors. Application of immersed UF membranes using enhanced coagulation has recently been developed and applied to remove disinfectant byproduct precursors, color and TOC for drinking water applications. With this process coagulation-flocculation-sedimentation-filtratio stages of a conventional treatment plant are replaced by a single tank coagulation-ultrafiltration process. Compared to conventional treatment, this novel water treatment method results in higher color and TOC removal and requires less coagulant. Using a lower chemical dose results in significantly less treatment residuals and reduced disposal costs. This system also has a small footprint, since it is designed with a lower hydraulic retention time associated with the need to only form flocs which

exceed the membrane pore size. The presence of Fe and Mn in drinking water distribution systems is also a concern since it reduces the aesthetic quality of water. When dissolved Fe and Mn are oxidized, they form insol. compds. which precipitate and cause yellowish to reddish-brown to black staining, depending on the relative abundance of each metal. To improve the aesthetic quality of drinking water, USEPA National Secondary Drinking Water Regulations suggest maximum concns. of 0.30 mg/L and 0.05 mg/L for Fe and Mn, resp. The ZeeWeed UF Membrane system can remove particles  $>0.1 \mu$  in size, including Fe and Mn ppts. To remove dissolved Fe and Mn, an oxidation step is added prior to the membrane, which converts the dissolved species into their insol. forms. Oxidation may be achieved by aeration or by adding oxidizing chems., e.g.,  $Cl_2$ ,  $ClO_2$ , or  $KMnO_4$ . For water sources requiring removal of dissolved orgs. and dissolved Fe and Mn, ZENON developed a unique process in which the ZeeWeed UF membrane system is coupled with a single step coagulation-oxidization process. Critical process issues required to prevent membrane fouling and achieve treated water quality objectives with respect to orgs. and Fe and Mn remove with the simultaneous step coagulation-oxidation process are discussed. Results from numerous pilot studies conducted to demonstrate the capabilities of ZeeWeed 500 immersed membrane system to combine both of these pre-treatment steps are presented. A detailed discussion is given to evaluate the effect of different operating parameters on TOC, color, Fe, and Mn removal from surface water and groundwater.

- ST water purifn simultaneous oxidn coagulation immersed membrane; membrane sepn simultaneous oxidn coagulation water purifn; dissolved org iron manganese removal source water purifn; pathogen removal simultaneous oxidn coagulation membrane sepn water purifn; disinfection byproduct formation control simultaneous oxidn coagulation membrane sepn
- IT Water purification  
(coagulation, enhanced; simultaneous oxidation:coagulation water purification  
using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- IT Standards, legal and permissive  
(drinking water quality; simultaneous oxidation:coagulation water purification  
using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- IT Water purification  
(membrane separation, submerged ultrafiltration membranes; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- IT Water purification  
(oxidation, aeration or chemical; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- and iron and manganese from source water)
- IT Pathogen  
Turbidity  
(removal of; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)

- IT Organic compounds, processes  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); PYP (Physical process); REM (Removal or disposal); OCCU (Occurrence); PROC (Process)  
(simultaneous oxidation:coagulation water purification using immersed membranes  
to remove dissolved organic compds. and iron and manganese from source water)
- IT Water purification  
(ultrafiltration, submerged membranes; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds.  
and iron and manganese from source water)
- IT 11115-92-7, Iron oxy(hydroxide) 24623-77-6, **Aluminum hydroxide oxide**  
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)  
(coagulant; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- IT 7439-89-6, Iron, processes 7439-96-5, Manganese, processes  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POL (Pollutant); PYP (Physical process); REM (Removal or disposal); OCCU (Occurrence); PROC (Process)  
(dissolved; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- IT 64-19-7D, Acetic acid, halo derivs. 74-82-8D, Methane, halo derivs.  
RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)  
(formation potential of; simultaneous oxidation:coagulation water purification  
using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- IT 7722-64-7, Potassium permanganate 7782-50-5, Chlorine, uses 10049-04-4, Chlorine dioxide  
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)  
(oxidant; simultaneous oxidation:coagulation water purification using immersed membranes to remove dissolved organic compds. and iron and manganese from source water)
- RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Best, G; Paper presented at the 9th National Conference on Drinking Water 2000  
(2) Faust, S; Chemistry of Water Treatment 1999  
(3) Singer, P; Water Quality and Treatment: A Handbook of Community Water Supplies 1999  
(4) Sommerfeld, E; Iron and Manganese Removal Handbook 1999

L58 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:256166 CAPLUS  
 DN 136:284075  
 ED Entered STN: 05 Apr 2002  
 TI Adsorption container and iron oxide adsorber  
 IN Schlegel, Andreas; Bailly, Peter; Kischkewitz, Juergen; Rohbock, Klaus  
 PA Bayer Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 55 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM C02F001-28  
 ICS C01G049-02; B01J020-06; B01D053-26; C02F101-20  
 CC 61-5 (Water)  
 Section cross-reference(s): 60

FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002026633	A1	20020404	WO 2001-EP10930	20010921
WO 2002026633	C1	20020919		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10047996	A1	20020411	DE 2000-10047996	20000926
DE 10047997	A1	20020411	DE 2000-10047997	20000926
DE 10115414	A1	20021002	DE 2001-10115414	20010329
DE 10115415	A1	20021002	DE 2001-10115415	20010329
DE 10115417	A1	20021002	DE 2001-10115417	20010329
DE 10115418	A1	20021002	DE 2001-10115418	20010329
DE 10129304	A1	20021219	DE 2001-10129304	20010618
DE 10129306	A1	20021219	DE 2001-10129306	20010618
DE 10129307	A1	20021219	DE 2001-10129307	20010618
AU 2001089904	A5	20020408	AU 2001-89904	20010921
EP 1334072	A1	20030813	EP 2001-969752	20010921
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001014198	A	20031007	BR 2001-14198	20010921
US 2002074292	A1	20020620	US 2001-962972	20010925
PRAI DE 2000-10047996	A	20000926		
DE 2000-10047997	A	20000926		
DE 2001-10115414	A	20010329		
DE 2001-10115415	A	20010329		
DE 2001-10115417	A	20010329		
DE 2001-10115418	A	20010329		
DE 2001-10129304	A	20010618		
DE 2001-10129306	A	20010618		

DE 2001-10129307 A 20010618  
 WO 2001-EP10930 W 20010921

- AB The invention relates to a **filtration** unit containing fragments or granulates consisting of fine particle iron oxides and/or iron oxyhydroxides of any modification with a high sp. surface, to methods for producing said fragments or granulates and to the use thereof in the **filtration** units.
- ST **water filtration** granule iron oxide iron oxyhydroxide;  
 heavy metal adsorption **water filter** iron oxide iron oxyhydroxide
- IT **Water** purification  
 (adsorption; **water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT Wastewater treatment  
**Water** purification  
 (**filtration**, adsorptive; **water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT Fluoropolymers, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (hydrophobic membrane material; **water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT Adsorbents  
**Filters**  
 Grains (particles)  
 Pigments, nonbiological  
 (**water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT 9002-84-0  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (hydrophobic membrane material; **water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT 1309-48-4, Magnesium oxide, processes 1332-37-2, Iron oxide, processes 1344-28-1, Aluminum oxide, processes 11115-92-7, Iron oxyhydroxide 12026-28-7, Titanium hydroxide oxide (Ti(OH)2O) 12710-11-1, Magnesium hydroxide oxide 13463-67-7, Titanium oxide, processes 20344-49-4, Iron hydroxide oxide (Fe(OH)O) 24623-77-6, **Aluminum hydroxide oxide**  
 RL: CPS (Chemical process); FMU (Formation, unclassified); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)  
 (**water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT 26273-46-1, Ferric carbonate  
 RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (**water filtration** unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)
- IT 546-93-0, Magnesium carbonate 1310-73-2, Sodium hydroxide, reactions 7446-70-0, Aluminum chloride, reactions 7487-88-9, Magnesium sulfate,

reactions 7720-78-7, Ferrous sulfate 7757-88-2, Magnesium sulfite 7783-40-6, Magnesium fluoride 7784-18-1, Aluminum fluoride 7786-30-3, Magnesium chloride, reactions 10043-01-3, Aluminum sulfate 10377-60-3, Magnesium nitrate 11130-18-0, Titanium chloride 13473-90-0, Aluminum nitrate 14455-29-9, Aluminum carbonate 18130-44-4, Titanium sulfate 22465-17-4, Titanium nitrate 40549-31-3, Aluminum sulfite 51142-88-2, Titanium fluoride 76214-28-3, Titanium carbonate 99770-06-6, Titanium sulfite

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(water filtration unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)

IT 57-12-5D, Cyanide, compds. 7439-92-1, Lead, processes 7439-97-6, Mercury, processes 7440-36-0D, Antimony, compds. 7440-38-2D, Arsenic, compds. 7440-41-7D, Beryllium, compds. 7440-43-9, Cadmium, processes 7440-47-3, Chromium, processes 7723-14-0D, Phosphorus, compds. 7782-49-2D, Selenium, compds. 13494-80-9D, Tellurium, compds.

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); REM (Removal or disposal); PROC (Process)

(water filtration unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)

IT 79-14-1, Glycolic acid, uses

RL: NUU (Other use, unclassified); USES (Uses)

(water filtration unit containing fragments or granulates of iron oxides and/or iron oxyhydroxides)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Alcan Int Ltd; WO 9950182 A 1999 CAPLUS
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1996, V1996(07)
- (3) Bayer Ag; EP 0704500 A 1996 CAPLUS
- (4) Blumer, D; US 4515756 A 1985 CAPLUS
- (5) Digiacomo, P; US 4481087 A 1984 CAPLUS
- (6) Horne, F; US 3319791 A 1967
- (7) Jean-Claude, C; US 4366090 A 1982 CAPLUS
- (8) Noelting, R; GB 258275 A 1927 CAPLUS
- (9) Occidental Res Corp; WO 8303595 A 1983 CAPLUS
- (10) Pitzer, U; US 5368640 A 1994 CAPLUS
- (11) Process Scient Innovations; GB 2295970 A 1996
- (12) Raymond, M; US 3392838 A 1968
- (13) Stockton, W; US 5744030 A 1998
- (14) Toda Kogyo Corp; JP 08059244 A 1996 CAPLUS
- (15) van der Wal, W; US 4459370 A 1984 CAPLUS

L58... ANSWER 8 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:71788 CAPLUS

DN 136:139647

ED Entered STN: 25 Jan 2002

TI Multi-layer reaction mixtures and apparatuses for delivering a volatile component via a controlled exothermic reaction

IN Li, Yu-Jun; Mao, Mark Hsiang-Kuen; Tamura, Haruo; Hu, Hsin-Yuan

PA The Procter & Gamble Company, USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A01N025-20

ICS A61M011-04; A01G013-06

CC 62-5 (Essential Oils and Cosmetics)

Section cross-reference(s): 59

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002005640	A1	20020124	WO 2000-US19081	20000713
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1298993	A1	20030409	EP 2000-950328	20000713
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	US 2003105192	A1	20030605	US 2003-340993	20030113
PRAI	WO 2000-US19081	W	20000713		

AB Multilayer reaction mixts. that include exothermic generating particles having a water soluble coating encasing a portion of the particles, a volatile component and, optionally, a buffer, an aqueous solution or both are disclosed. At least two layers of the reaction mixture contain exothermic generating particles and at least one layer of the reaction mixture contains a portion of the exothermic generating particles suspended in a gel that includes the water soluble coating. These multilayer reaction mixts. are especially suited to generate heat in a controllable manner, so that volatile components can be controllably released to the surrounding environment. Apparatus and methods using these multilayer reaction mixts. are also disclosed.

ST air fragrance insecticide exothermic reaction

IT Essential oils

RL: MOA (Modifier or additive use); USES (Uses)

(Cauout; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)

IT Essential oils

RL: MOA (Modifier or additive use); USES (Uses)

(Costus; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)

IT Essential oils

RL: MOA (Modifier or additive use); USES (Uses)

(Labdanum; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air

- treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (Salvia; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (Verbena; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Waxes
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (ambergris; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (bergamot; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Vinyl compounds, uses
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (carboxy-containing, polymers; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (chamomile, German; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Musks
  - (civet; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (clove; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (eucalyptus; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Genista
  - Jasmine (Jasminum)
  - Mimosa
  - Narcissus
  - Rose (Rosa)
  - (exts.; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air



- treatment with perfumes and insecticides)
- IT Essential oils  
RL: MOA (Modifier or additive use); USES (Uses)  
(lavender; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils  
RL: MOA (Modifier or additive use); USES (Uses)  
(lemon; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Acaricides  
Air conditioning  
**Antibacterial** agents  
Chemiluminescent substances  
Citronella (genus)  
Deodorants  
Disinfectants  
Dyes  
Exothermic reaction  
Fluorescent substances  
Fumigants  
Insect repellents  
Insecticides  
Musk  
Odor and Odorous substances  
Pearlescent pigments  
Perfumes  
Pesticides  
Volatile substances  
(multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Acrylic polymers, uses  
Albumins, uses  
Bentonite, uses  
Caseins, uses  
Collagens, uses  
Gelatin, uses  
Hydrides  
Hydroxides (inorganic)  
Oxides (inorganic), uses  
Polymers, uses  
Polyoxyalkylenes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Liquids  
(oils, castoreum; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)

- IT Resins
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (olibanum; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (peppermint; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Vinyl compounds, uses
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (polymers; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (rosemary; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (sage, Salvia officinalis; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (sandalwood; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Carrot
  - (seed extract; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Polyphosphoric acids
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (sodium salts; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT Essential oils
  - RL: MOA (Modifier or additive use); USES (Uses)
    - (sour orange neroli; multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)
- IT 50-21-5, Lactic acid, uses 50-81-7, Ascorbic acid, uses 56-65-5, Adenosinetriphosphate, uses 56-86-0, Glutamic acid, uses 59-67-6, Nicotinic acid, uses 60-12-8,  $\beta$ -Phenylethyl alcohol 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 65-85-0, Benzoic acid, uses 69-72-7, Salicylic acid, uses 76-22-2, Camphor 77-92-9, Citric acid, uses 78-70-6 79-09-4, Propanoic acid, uses 79-14-1, Glycolic acid, uses 80-69-3, Tartronic acid 87-69-4, Tartaric acid, uses 88-99-3, Phthalic acid, uses 89-78-1, Menthol 90-64-2, Mandelic acid

91-20-3D, Naphthalene, derivs. 93-15-2, Methyl eugenol 97-53-0, Eugenol 97-54-1 98-11-3, Benzenesulfonic acid, uses 98-79-3, Pyrrolidone carboxylic acid 98-86-2, Acetophenone, uses 100-21-0, Terephthalic acid, uses 100-51-6, Benzyl alcohol, uses 101-86-0,  $\alpha$ -Hexylcinnamic aldehyde 103-36-6, Ethyl cinnamate 103-54-8, Cinnamyl acetate 103-82-2, Phenylacetic acid, uses 103-95-7, Cyclamen aldehyde 104-15-4, Toluenesulfonic acid, uses 104-46-1, Anethole 104-54-1, Cinnamyl alcohol 104-67-6,  $\gamma$ -Undecalactone 105-54-4, Ethyl butyrate 106-23-0 106-24-1, Geraniol 107-75-5, Hydroxycitronellal 107-92-6, Butyric acid, uses 109-52-4, Valeric acid, uses 110-15-6, Succinic acid, uses 110-16-7, Maleic acid, uses 110-17-8, Fumaric acid, uses 110-38-3, Ethyl caprate 110-44-1, Sorbic acid 110-94-1, Glutaric acid 111-16-0, Pimelic acid 115-95-7, Linalyl acetate 116-02-9, 3,3,5-Trimethylcyclohexanol 120-72-9, Indole, uses 121-32-4, Ethyl vanillin 121-33-5, Vanillin 121-91-5, Isophthalic acid, uses 122-00-9, p-Methylacetophenone 122-03-2, Cumin aldehyde 122-40-7 122-63-4, Benzyl propionate 123-92-2, Isoamyl acetate 124-04-9, Adipic acid, uses 134-20-3, Methyl anthranilate 140-11-4, Benzyl acetate 141-82-2, Malonic acid, uses 144-62-7, Oxalic acid, uses 149-91-7, Gallic acid, uses 473-81-4, Glyceric acid 487-79-6, Kainic acid 507-70-0, Borneol 526-95-4, Gluconic acid 528-44-9, Trimellitic acid 552-63-6, Tropic acid 600-15-7,  $\alpha$ -Hydroxybutyric acid 621-82-9, Cinnamic acid, uses 627-83-8, Ethyleneglycol distearate 1304-56-9, Beryllium oxide, uses 1305-78-8, Calcium oxide, uses 1327-43-1, Aluminum magnesium silicate 1330-43-4, Sodium tetraborate 1337-83-3, Undecenal 1405-86-3, Glycyrrhizic acid 2466-09-3, Pyrophosphoric acid 5329-14-6, Sulfamic acid 5392-40-5, Citral 6915-15-7, Malic acid 7320-34-5, Potassium pyrophosphate 7429-90-5D, **Aluminum, oxides, hydroxides, or hydrides** 7439-89-6D, **Iron, oxides, hydroxides, or hydrides** 7439-93-2D, Lithium, oxides, hydroxides, or hydrides 7439-95-4D, Magnesium, oxides, hydroxides, or hydrides 7440-09-7D, Potassium, oxides, hydroxides, or hydrides 7440-23-5D, Sodium, oxides, hydroxides, or hydrides 7440-41-7D, Beryllium, oxides, hydroxides, or hydrides 7440-50-8D, Copper, oxides, hydroxides, or hydrides 7440-66-6D, Zinc, oxides, hydroxides, or hydrides 7440-70-2D, Calcium, oxides, hydroxides, or hydrides 7487-88-9, Magnesium sulfate, uses 7558-80-7, Sodium dihydrogen phosphate 7601-54-9, Sodium phosphate 7631-86-9, Silica, uses 7631-90-5, Sodium hydrogen sulfite 7664-38-2, Orthophosphoric acid, uses 7722-88-5, Sodium pyrophosphate 7727-15-3, Aluminum bromide 7773-03-7, Potassium hydrogen sulfite 7778-77-0, Potassium dihydrogen phosphate 7784-23-8, Aluminum iodide 7786-30-3, Magnesium chloride, uses 7789-78-8, Calcium hydride 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9000-30-0, Gum guar 9000-36-6, Karaya gum 9000-40-2, Carob-seed gum 9000-65-1, Gum tragacanth 9000-69-5, Pectin 9002-18-0, Agar 9002-89-5, Polyvinyl alcohol 9002-98-6 9003-04-7, Sodium polyacrylate 9003-05-8, Polyacrylamide 9003-09-2, Poly (vinyl methyl ether) 9003-32-1, Polyethylacrylate 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Sodium carboxymethylcellulose 9004-34-6, Cellulose, uses 9004-54-0, Dextran, uses 9004-57-3, Ethylcellulose 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3,

Methylhydroxypropylcellulose 9004-67-5, Methylcellulose 9004-70-0, Nitrocellulose 9005-22-5, Sodium cellulose sulfate 9005-25-8, Starch, uses 9005-32-7, Alginic acid 9005-37-2 9005-38-3, Sodium alginate 9011-85-2, Quince seed gum 9014-37-3 9037-55-2, Galactan 9057-02-7, Pullulan 9057-06-1, Carboxymethyl starch 11138-66-2, XanthanGum 12136-45-7, Potassium oxide, uses 12173-47-6, Hectorite 13327-32-7, Beryllium hydroxide 16853-85-3, Lithium aluminum hydride 25763-86-4, Disulfurous acid, monosodium salt 36729-58-5, Decanol 50984-52-6, Anisaldehyde 53563-67-0D, derivs. 57856-81-2, Allylcaprato 61970-00-1, Firefly luciferase 111937-70-3, Hydroxyacrylic acid 141533-39-3 392247-40-4

RL: MOA (Modifier or additive use); USES (Uses)

(multilayer reaction mixts. and apparatuses for delivering volatile component via controlled exothermic reaction such as air treatment with perfumes and insecticides)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Brite, A; US 3374742 A 1968
- (2) Brite, A; US 3378333 A 1968 CAPLUS
- (3) Cube Co Ltd F; EP 0695552 A 1996 CAPLUS
- (4) Nishimura, A; US 4171340 A 1979 CAPLUS

L58 ANSWER 9 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2002-627528 [67] WPIX

DNC C2004-012781

TI Foam composition for adhesive tape, contains surface-modified nanoparticles disposed in vehicle and each having specified particle diameter.

DC A96 D22 G03

IN BARAN, J R; JOHNSON, G G; JOHNSON, M A; KOLB, B U; LEHMANN, M P; SOKALSKI, J S

PA (MINN) 3M INNOVATIVE PROPERTIES CO; (BARA-I) BARAN J R; (JOHN-I) JOHNSON G G; (JOHN-I) JOHNSON M A; (KOLB-I) KOLB B U; (LEHM-I) LEHMANN M P; (SOKA-I) SOKALSKI J S

CYC 97

PI WO 2002062881 A2 20020815 (200267)\* EN 35p C08J009-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU DM DZ EC ES  
GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZM ZW

US 2002128336 A1 20020912 (200267) C08J009-00

US 6586483 B2 20030701 (200345) C08J009-00

EP 1358254 A2 20031105 (200377) EN C08J009-00

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

KR 2003067744 A 20030814 (200382) C08J009-00

ADT WO 2002062881 A2 WO 2001-US49667 20011226; US 2002128336 A1 US 2001-756422  
20010108; US 6586483 B2 US 2001-756422 20010108; EP 1358254 A2 EP  
2001-998074 20011226, WO 2001-US49667 20011226; KR 2003067744 A KR  
2003-709141 20030708

FDT EP 1358254 A2 Based on WO 2002062881

PRAI US 2001-756422 20010108

IC ICM C08J009-00

AB WO 200262881 A UPAB: 20040115

NOVELTY - A foam composition comprises a vehicle; and surface-modified nanoparticles disposed in the vehicle. Each nanoparticle has a particle diameter of less than 100 nm.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(a) A method of making the foam composition, comprising introducing a foaming agent into the foam composition in an amount to form voids in the composition;

(b) A method of making a tape, comprising foaming the composition, and coating the composition on a substrate;

(c) A method of determining compatibility of a predetermined vehicle and surface-modified nanoparticles, comprising selecting the surface-modified nanoparticles; combining the surface-modified nanoparticles and the vehicle to form the composition; and introducing the foaming agent into the composition; and

(d) A method of foaming the composition, comprising adding the surface-modified nanoparticles to the predetermined vehicle; and foaming the vehicle.

USE - The inventive composition, in the form an adhesive tape or a pressure sensitive adhesive tape (both claimed), is used for an article (claimed) e.g. a gasket or an automobile body molding. It can be used in a variety of applications including adhesives; flotation; in an automotive industry (including automotive body moldings); applications related to automotive glazing (including gaskets and sealants); in a construction industry (including structural components (e.g. posts, sized lumber, shaped trim, posts, beams and shaped structural members), and lightweight ceramic including pre-cast and cast-in-place construction materials (including cementitious and gypsum materials (e.g. blocks, boards, panels, roof decks and flooring))); landfill covers; odor barriers; dust covers; firefighting and fireproofing foams; liquid containment booms (e.g. oil spill containment boom); and fillers for voids (e.g. oil wells and tunnels) and voids present in soil. Other applications include packaging, commercial cleaning products including cleaners for vertical cleaning applications, inks, de-inking compositions and surface coatings including foamed **coatings** for paper and **textile** treatment. The composition can also be used in foamed personal care products including hair treatment compositions, shaving compositions and skin treatment composition; medical applications including bandages and wound dressings; and household and industrial applications including cups, plates, earplugs, cushion, pillows, insulation, a damper including for suppressing sound, and/or absorbing vibration (including cushioning the vibration of machine covers), and baffles. It is useful as a gasket or seal to seal an area from dust, moisture, and/or organic vapor. The sealing applications include sealing gaps between parts in computer printers, sealing electronic equipment and sealing skylight assemblies.

ADVANTAGE - The inventive composition is capable of forming a persistent foam in the absence of a surfactant. It can be foamed once the appropriate surface-modified nanoparticles are dispersed throughout the

composition. It can be formulated to provide an improved foaming, e.g. an increased number of voids and/or more uniformly dimensioned voids, relative to the composition without the surface-modified nanoparticles. It can also be formulated to be free of volatile organic compounds and flammable solvents. It can also be formulated to provide foams that are flexible and conformable, and is suitable for filling gaps and bonding irregular surfaces. When bonding rough or irregular surfaces, the properties and formulation of a foam tape are preferably further selected to provide the foam tape that distributes stress uniformly over the bonded area. The foam can also be formulated to provide a bond line that seals, cushions vibration, damps vibration, resists impact, withstands a wide temperature range or provides good insulating qualities or provides a combination of these properties.

Dwg.0/0

FS CPI

FA AB

MC CPI: A12-V03A; D09-C04B; G03-B04

L58 ANSWER 10 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2002-713284 [77] WPIX

CR 2002-619084 [66]

DNN N2002-562767 DNC C2002-202140

TI Fire-resistant composite panel, for interior materials for cars, comprises substrate **layer** of woven or nonwoven **fabric** impregnated or **coated** with resin compound and rear layer of aluminum sheet or galvanized steel plate.

DC A14 A28 A32 A93 A95 E37 F04 L02 M13 P73

IN KIM, G M; KIM, H Y; SONG, W H; KIM, H; KIM, K; SONG, W

PA (GLDS) LG CHEM LTD; (KIMH-I) KIM H; (KIMK-I) KIM K; (SONG-I) SONG W

CYC 25

PI WO 2002053373 A1 20020711 (200277)\* EN 52p B32B017-04

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

W: AU CN JP US

KR 2002056816 A 20020710 (200304) B32B017-04

CN 1404441 A 20030319 (200344) B32B017-04

US 2003124397 A1 20030703 (200345) B27N009-00

EP 1365912 A1 20031203 (200380) EN B32B017-04

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

ADT WO 2002053373 A1 WO 2001-KR2292 20011228; KR 2002056816 A KR 2001-69636

20011109; CN 1404441 A CN 2001-805295 20011228; US 2003124397 A1 WO

2001-KR2292 20011228, US 2002-220477 20020828; EP 1365912 A1 EP

2001-272958 20011228, WO 2001-KR2292 20011228

FDT EP 1365912 A1 Based on WO 2002053373

PRAI KR 2001-69635 20011109; KR 2000-85422 20001229

IC ICM B27N009-00; B32B017-04

ICS B32B005-02; B32B015-08; B32B017-02; B32B019-00

AB WO 200253373 A UPAB: 20031211

NOVELTY - Fire-resistant composite panel comprises:

(1) substrate **layer** (12) of woven or nonwoven **fabric** of inorganic fiber or paper impregnated or coated with a resin compound containing an inorganic filler; and

(2) rear layer (31) of aluminum sheet or galvanized steel plate.

DETAILED DESCRIPTION - Fire-resistant composite panel comprises:

(1) substrate **layer** (12) of woven or nonwoven **fabric** of inorganic fiber or paper impregnated or coated with a resin compound containing an inorganic filler having loess and a thermosetting resin selected from (modified) phenol resin, modified phenol-urea resin and (modified) melamine resin; and

(2) a rear layer (31) of aluminum sheet or galvanized steel plate.

INDEPENDENT CLAIMS are included for the following:

(1) fire-resistant decorative composite panel comprising:

(i) decorative layer (21) formed by impregnating or coating patterned substrate with a thermosetting resin;

(ii) a substrate layer; and

(iii) a rear layer; and

(2) fire-resistant decorative composite panel preparation by integral heat pressing of decorative layer, 1-5 substrate layers and a rear layer.

USE - Fire-resistant composite panel used as decorative composite panel (claimed) for interior finishing of passenger cars, ships, automobiles, materials for walls of subway stations, washrooms and kitchens, building exterior or interior materials for ceilings, floors and furniture.

ADVANTAGE - The composite panel has excellent fire-resistance, impact-resistance, low dimensional change and good workability.

DESCRIPTION OF DRAWING(S) - The figure shows the section of a fire-resistant decorative composite panel.

Substrate 12

Decorative layer 21

Rear layer 31

Dwg.5/10

FS CPI GMPI

FA AB; GI; DCN

MC CPI: A05-B01; A05-C01B; A08-R01; A11-B05; A11-B09A1; A12-S08B; A12-S08C; A12-S08D3; A12-T04D; E31-P03; E31-P05B; E33-A04; E34-B01; E34-C02; E34-D01; E35-U02; F03-D02; L02-D15; L02-J01; M13-H04; M13-H05

L58 ANSWER 11 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2002-619084 [66] WPIX

CR 2002-713284 [77]

DNN N2002-490123 DNC C2002-174843

TI Fire-resistant panel for walls of washrooms and kitchens, has woven or non-woven fabric of inorganic fiber, or paper as substrate which is impregnated or coated with compound containing loess and thermosetting resin.

DC A14 A28 A32 A93 E37 F04 P73

IN KIM, G M; KIM, H Y; SONG, W H; KIM, H; KIM, K; SONG, W

PA (GLDS) LG CHEM LTD; (KIMH-I) KIM H; (KIMK-I) KIM K; (SONG-I) SONG W

CYC 25

PI WO 2002053372 A1 20020711 (200266)\* EN 45p B32B017-04

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

W: AU CN JP US

KR 2002056815 A 20020710 (200304) B32B015-08

US 2003022577 A1 20030130 (200311) B32B017-02

CN 1406178 A 20030326 (200344) B32B017-04

EP 1345763 A1 20030924 (200363) EN B32B017-04

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

ADT WO 2002053372 A1 WO 2001-KR2289 20011228; KR 2002056815 A KR 2001-69635  
20011109; US 2003022577 A1 WO 2001-KR2289 20011228, US 2002-220478  
20020828; CN 1406178 A CN 2001-805659 20011228; EP 1345763 A1 EP  
2001-272956 20011228, WO 2001-KR2289 20011228

FDT EP 1345763 A1 Based on WO 2002053372

PRAI KR 2001-69636 20011109; KR 2000-85422 20001229

IC ICM B32B015-08; B32B017-02; B32B017-04

ICS B32B005-02; B32B027-04; D04H001-00; D04H005-00

AB WO 200253372 A UPAB: 20031001

NOVELTY - The fire-resistant panel comprises a substrate material which is a (non)woven fabric of inorganic fiber, or paper, impregnated or coated with a resin compound. The resin compound contains loess and a thermosetting resin selected from phenol resin, modified phenol resin, modified phenol-urea resin, melamine resin, modified melamine resin, modified melamine-urea resin, urea resin and modified urea resin.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for fire-resistant decorative panel (300) comprising

(a) decoration layer (21) formed by impregnating or coating patterned substrate with thermosetting resin; and

(b) core-material layer (12) formed by impregnating or coating substrate material with resin compound containing inorganic filler having loess as main component and thermosetting resin.

USE - Fire-resistant panel for walls of subway station, washrooms and kitchens, building interior or exterior, materials for ceiling and floors, floor of passenger cars, interior materials, and for furniture.

ADVANTAGE - The panel has excellent fire-resistance and dimensional stability. Loess does not transfer heat if the panel is subjected to high temperature when a fire breaks out, and additionally the water of crystallization contained within the loess component absorbs heat to provide fire-resistant effect. The loess effects uniform heat transfer to the resin during formation of panel under high temperature and pressure, and it provides good adhesion between each layer.

DESCRIPTION OF DRAWING(S) - The figure shows a sectional view of the fire-resistant decorative panel.

Core-material layer 12

Reinforcing layer 13

Decoration layer 21

Decorative panel 300

Dwg.4/6

FS CPI GMPI

FA AB; GI; DCN

MC CPI: A09-A01; A11-B09A1; A11-B09B; A12-A04A; A12-R07; E31-P02D; F02-A03A;  
F02-C01; F04-B02; F04-E

L58 ANSWER 12 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2002-537176 [57] WPIX

CR 2002-507876 [54]

DNN N2002-425444 DNC C2002-152205

TI Recording medium, i.e., **surface** modifying inkjet ink, for printing **fabrics**, comprises nanoparticles of predetermined



particle sizes.

DC A97 F06 G02 P75 T04  
IN MACDONALD, J G; NOHR, R S  
PA (KIMB) KIMBERLY-CLARK WORLDWIDE INC; (MACD-I) MACDONALD J G; (NOHR-I) NOHR  
R S

CYC 98

PI WO 2002028660 A2 20020411 (200257)\* EN 67p B41M005-00  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO  
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2002011840 A 20020415 (200257) B41M005-00  
US 2002149656 A1 20021017 (200270) C09D011-00  
EP 1324886 A2 20030709 (200345) EN B41M005-00  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

ADT WO 2002028660 A2 WO 2001-US42433 20011002; AU 2002011840 A AU 2002-11840  
20011002; US 2002149656 A1 Provisional US 2000-237142P 20001002,  
Provisional US 2000-243022P 20001025, US 2001-969539 20011002; EP 1324886  
A2 EP 2001-979925 20011002, WO 2001-US42433 20011002

FDT AU 2002011840 A Based on WO 2002028660; EP 1324886 A2 Based on WO  
2002028660

PRAI US 2000-243022P 20001025; US 2000-237142P 20001002; US 2001-969539  
20011002

IC ICM B41M005-00; C09D011-00  
ICS B41J002-17

AB WO 200228660 A UPAB: 20030716

NOVELTY - A recording medium for a printing process comprises a  
nanoparticle and a liquid vehicle. The nanoparticle has a size less than  
1000 nanometers and comprises a particle template having a colorant layer  
disposed upon the particle template.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for (A) a  
printed fabric printed with the recording medium and exhibited an AATCC  
Gray Scale color change of at least 2.5 when subjected to the American  
Association of Textile Chemists and Colorists (AATCC 61-2A) accelerated  
laundering method; (B) a printing process comprising ejecting the  
recording medium in the form of droplets from an orifice in accordance  
with a recording signal to form an image on a substrate; (C) a method of  
making a recording medium for a printing process comprising (i) providing  
a nanoparticle having a size of less than 1000 nanometers comprising a  
particle template, (ii) coating the particle template with a colorant to  
form a colorant layer, and (iii) suspending the nanoparticle in a liquid  
vehicle; (D) a nanoparticle having a size less than 1000 nanometers  
comprising a particle template having a colorant layer disposed upon the  
particle template; and (E) a method of making a nanoparticle having a size  
of less than 1000 nanometers, comprising providing a particle template,  
and coating the template with a colorant to form a colorant layer.

USE - For printing substrates, e.g., textiles, woven fabrics,  
non-woven fabrics, celluloses, papers, ceramics, polymers, composites,  
woods, glasses, plastics, metals, human skins, animal skins, leathers or

films (claimed).

ADVANTAGE - The nanoparticle based inks deliver better color, color density control, improved printability, enhanced durability, and increased lightfastness, and are capable of being printed on woven and non-woven fabrics and paper products without special treatment or other limitations.

DESCRIPTION OF DRAWING(S) - The figure depicts the formation of a nanoparticle.

Dwg.1/3

FS CPI EPI GMPI

FA AB; GI

MC CPI: A12-W07D1; F03-F31; G02-A04A; G05-F03

EPI: T04-G02C; T04-G07

L58 ANSWER 13 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2003-033581 [03] WPIX

DNN N2003-026584 DNC C2003-008178

TI Composite metal-type hollow tube has composite material layer consisting of ceramic and metal compounds whose concentrations vary gradually with respect to each other.

DC M22 P53

PA (MATS-I) MATSUURA K; (WATA-I) WATANABE Y; (UEDA-N) ZH UEDA SENI KAGAKU SHINKOKAI

CYC 1

PI JP 2002263823 A 20020917 (200303)\* 9p B22D019-16

ADT JP 2002263823 A JP 2001-116121 20010309

PRAI JP 2001-116121 20010309

IC ICM B22D019-16

ICS B22D013-02; B22D019-00; C23C024-08; C23C024-10

AB JP2002263823 A UPAB: 20030113

NOVELTY - A composite material layer consists of ceramic and metal compounds whose concentrations gradually vary with respect to each other. The composite material layer consists of intermetallic compounds such as **aluminum oxide**, steel, nickel aluminide, **iron** aluminide, cobalt aluminide, titanium aluminide and niobium aluminide.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) metallic compound;
- (2) metal/ceramic composite hollow tube; and
- (3) metal/ceramic composite hollow tube manufacturing method.

USE - Composite metal-type hollow tube.

ADVANTAGE - Composite hollow tube has workability, toughness, heat resistance, oxidation resistance, corrosion resistance and wear resistance.

DESCRIPTION OF DRAWING(S) - The figure shows a graphical representation of concentration variation with respect to dimension of the **layer**. (Drawing includes non-English language **text**).

Dwg.1/6

FS CPI GMPI

FA AB; GI

MC CPI: M22-G03K

L58 ANSWER 14 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2002-082601 [11] WPIX

DNC C2002-024899

TI New comb polymer is useful in e.g. coating material compositions comprises dispersible organic or inorganic pigment particles.

DC A13 A14 A60 A82 A89 A96 D21 E24 G01 G02 G08 L01 L02

IN AUSCHRA, C; ECKSTEIN, E; MUEHLEBACH, A; RIME, F; MUEHLEBACH, A

PA (CIBA) CIBA SPECIALTY CHEM HOLDING INC; (AUSC-I) AUSCHRA C; (ECKS-I)

ECKSTEIN E; (MUHL-I) MUEHLEBACH A; (RIME-I) RIME F

CYC 95

PI WO 2001051534 A1 20010719 (200211)\* EN 58p C08F293-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001037275 A 20010724 (200211) C08F293-00

BR 2001007548 A 20021008 (200277) C08F293-00

EP 1254185 A1 20021106 (200281) EN C08F293-00

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

KR 2002070335 A 20020905 (200311) C08F293-00

CN 1395587 A 20030205 (200334) C08F293-00

JP 2003519703 W 20030624 (200341) 80p C08F290-04

US 2003166755 A1 20030904 (200359) C08K003-32

MX 2002006782 A1 20021101 (200376) C08F002-38

ADT WO 2001051534 A1 WO 2001-EP53 20010104; AU 2001037275 A AU 2001-37275  
20010104; BR 2001007548 A BR 2001-7548 20010104, WO 2001-EP53 20010104; EP  
1254185 A1 EP 2001-909579 20010104, WO 2001-EP53 20010104; KR 2002070335 A  
KR 2002-708859 20020709; CN 1395587 A CN 2001-803641 20010104; JP  
2003519703 W JP 2001-551118 20010104, WO 2001-EP53 20010104; US 2003166755  
A1 WO 2001-EP53 20010104, US 2002-169884 20020710; MX 2002006782 A1 WO  
2001-EP53 20010104, MX 2002-6782 20020710

FDT AU 2001037275 A Based on WO 2001051534; BR 2001007548 A Based on WO  
2001051534; EP 1254185 A1 Based on WO 2001051534; JP 2003519703 W Based on  
WO 2001051534; MX 2002006782 A1 Based on WO 2001051534

PRAI EP 2000-810023 20000111

IC ICM C08F002-38; C08F290-04; C08F293-00; C08K003-32

ICS C08F004-40; C08F299-00; C08K003-00; C08K005-00; C08L051-00;  
C08L053-00; C08L055-00; C08L101-00; C09D011-00

AB WO 200151534 A UPAB: 20030919

NOVELTY - A new comb copolymer is claimed.

DETAILED DESCRIPTION - A comb copolymer of formula  $(In((AxBy))pZ)q$   
(I) is new.

I = fragment of a polymerization initiator capable of initiating  
polymerization of ethylenically unsaturated monomers in the presence of a  
catalyst which activates controlled radical polymerization;

A = oligopolymer or polymer fragment which consists of ethylenically  
unsaturated repeating units of polymerizable monomers or oligopolymers;

x = numeral greater than one and defines the number of repeating  
units in A;

B = monomer, oligopolymer or polymer fragment copolymerized with A;

y = 0 or a numeral greater than 0 and defines the number of monomer, oligopolymer or polymer repeating units in B;

Z = polymer backbone which consists of repeating units from polymerizable, ethylenically unsaturated monomers;

p = approximately 1 which defines the number of groups of the partial formula  $In(AxBy)$ - per polymer backbone Z;

q = approximately 1 which defines the number of groups of the partial formula  $-(AxBy)Z$  per initiator fragment In.

One of p and q represents 1 and the other represents approximately 1.

INDEPENDENT CLAIMS are also included for:

(1) a composition (A) comprising (weight%) the comb polymer (0.1-99.9) and dispersible inorganic or organic pigment particles (0.1-99.9);

(2) a pigment dispersion comprising (A) and a liquid carrier selected from water and/or organic solvents;

(3) a composition comprising the comb copolymer and a polymeric binder selected from aqueous emulsion and aqueous dispersion polymers;

(4) a macromonomer of formula  $In-((Ax-By)-X)q$ ;

(5) a composition comprising the macromonomer and at least one curing agent;

(6) preparation of the macromonomer involving:

(i) polymerizing an aliphatic monomer or oligomer containing ethylene groups in the presence of a polymerization initiator of formula  $InYq'$  by atom transfer radical polymerization in the presence of an oxidizable transition metal complex catalyst; and

(ii) replacing -Y in a polymerisate of formula  $In-((AxBy)Y)q$  with the polymerizable ethylenically unsaturated monomer unit -X; and

(7) preparation of the comb copolymer involving polymerizing the macromonomer with different amounts of polymerizable ethylenically unsaturated monomers.

X = polymerizable, ethylenically unsaturated monomer unit;

Y = radically transferable atom or group;

q' = approximately 1.

USE - For the preparation of inks or printing inks in printing processes, such as flexographic, screen, packaging, security ink, intaglio or offset printing, for pre-press stages and for textile printing, for office, home or graphic applications, for paper goods, for pens, felt tips, fiber tips, card, wood, (wood) stains, metal, inking pads, or inks for impact printing, (with impact pressure ink ribbons), for the preparation of colorants, for **coatings**, e.g. paints, for **textile** decoration and industrial marking, for roller coatings or powder coatings or for automotive finishes for high-solids, low-solvent, water containing or metallic coating materials, for water-containing formulations, water-containing paints, for the preparation of pigment particles for coatings, fibers platters or mold carriers, for non-impact printing material, for digital printing, for thermal wax transfer printing, for ink jet printing, for thermal transfer printing, for the preparation of color filters, especially for visible light in the range from 400-700 nm, which can be used for the production of liquid crystal displays (LCD) or charge combined devices (CCD), for the preparation of cosmetics, toners, polymeric ink particles for the preparation of toners for dry copy toners and liquid copy toners or electrophotographic toners. The toners can be prepared in master batches and be used in turn in master

batches for the preparation of colored plastics.

ADVANTAGE - The comb polymers act as solubilizer in water or organic solvent, also acts as a stabilizer to prevent precipitation of flocculation. The polymer improves the gloss of the pigment dispersion or enhances its rheology.

Dwg.0/0

FS

CPI

FA

AB; GI; DCN

MC

CPI: A02-A06; A07-B; A08-E01; A10-C03; A10-E01; D08-B01; E25-E01;  
E31-N04B; E31-N04C; E31-P02D; E31-P03; E31-P04; E31-P05; E35-C;  
E35-D; E35-K02; E35-L; E35-N; E35-P; E35-Q; E35-U02; G02-A02C;  
G02-A02D; G02-A02D2; G02-A02D4; G02-A02E; G02-A02G; G02-A02H;  
G02-A04A; G02-A05; G05-F01; G05-F03; G06-G05; G06-G06; L01-G04; L02-J

L58

ANSWER 15 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN

2001-557087 [62] WPIX

CR

2001-528563 [58]; 2001-662222 [76]; 2002-066438 [09]; 2002-082792 [11];  
2003-174733 [17]

DNC

C2001-165584

TI

Unit dose wash cycle fabric softening composition uses treated montmorillonite-containing clay as active softening ingredient.

DC

D25

IN

CAO, H; JACQUES, A; ROUSSELET, J

PA

(COLG) COLGATE PALMOLIVE CO

CYC

96

PI

US 6291421 B1 20010918 (200162)\* 6p C11D003-12  
WO 2001083663 A1 20011108 (200169) EN C11D003-00  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD  
SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2001055595 A 20011112 (200222) C11D003-00  
EP 1276838 A1 20030122 (200308) EN C11D003-00  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

JP 2003531969 W 20031028 (200373) 23p D06M011-79

CN 1439047 A 20030827 (200375) C11D003-00

ADT

US 6291421 B1 CIP of US 2000-558822 20000426, CIP of US 2000-620515  
20000720, US 2000-685756 20001009; WO 2001083663 A1 WO 2001-US13079  
20010423; AU 2001055595 A AU 2001-55595 20010423; EP 1276838 A1 EP  
2001-928774 20010423, WO 2001-US13079 20010423; JP 2003531969 W JP  
2001-580273 20010423, WO 2001-US13079 20010423; CN 1439047 A CN  
2001-811701 20010423

FDT

US 6291421 B1 CIP of US 6258767; AU 2001055595 A Based on WO 2001083663;  
EP 1276838 A1 Based on WO 2001083663; JP 2003531969 W Based on WO  
2001083663

PRAI

US 2000-685756 20001009; US 2000-558822 20000426; US 2000-620515  
20000720

IC

ICM C11D003-00; C11D003-12; D06M011-79  
ICS C11D003-20; C11D003-37; C11D003-382; C11D017-00; C11D017-06;

D06F035-00; D06M013-144; D06M013-224; D06M015-643

AB US 6291421 B UPAB: 20031120

NOVELTY - A unit dose wash cycle fabric softening composition uses treated montmorillonite-containing clay as active softening ingredient.

DETAILED DESCRIPTION - A unit dose wash cycle fabric softening composition comprises a compacted granular fabric softener composition. The fabric softener composition comprises an organic fatty softening material, which is a fatty alcohol or a pentaerythritol organic compound (PEC), in combination with treated montmorillonite-containing clay. The PEC can be higher aliphatic acid ester of pentaerythritol, an oligomer of pentaerythritol, and/or a lower alkylene oxide derivative of an oligomer of pentaerythritol. The montmorillonite-containing clay has a montmorillonite content of at least 85%. When the clay is activated with sodium ions, dried and ground to particles, the ground particles do not swell more than 2.5 fold over a period of 24 hours when added to deionized water at room temperature. The montmorillonite-containing clay is treated by drying the clay to a moisture content of 25-35 weight%, extruding the dried material through a die to form a paste, drying the paste to a moisture content of 10-14 weight%, and calcining at 120-250 deg. C. An INDEPENDENT CLAIM is also included for a process for softening or conditioning laundry comprising contacting the laundry with the unit dose softening composition.

USE - For softening or conditioning fabrics in the wash cycle of an automatic washing machine.

ADVANTAGE - By using montmorillonite-containing clay, the disintegration rate of the unit dose is enhanced while allowing the use of higher compacting pressure and reducing the friability of the dose.

Dwg.0/0

FS CPI

FA AB

MC CPI: D11-B11; D11-B15

L58 ANSWER 16 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2001-246023 [26] WPIX

DNC C2001-074182

TI Agent for removing salt deposits from the body and/or regeneration, for external application, preferably on underclothing, contains argillaceous earth powder, sea salt, minerals, algae and ethereal oil.

DC D22 L02

IN SEEMANN, R

PA (SEEM-I) SEEMANN R

CYC 95

PI DE 19941360 A1 20010301 (200126)\* 3p A61K035-02

WO 2001015663 A1 20010308 (200126) DE A61K007-48

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DK DM DZ  
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK  
LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG  
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000072805 A 20010326 (200137) A61K007-48

EP 1207848 A1 20020529 (200243) DE A61K007-48

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

ADT DE 19941360 A1 DE 1999-19941360 19990831; WO 2001015663 A1 WO 2000-EP8385  
20000828; AU 2000072805 A AU 2000-72805 20000828; EP 1207848 A1 EP  
2000-960537 20000828, WO 2000-EP8385 20000828

FDT AU 2000072805 A Based on WO 2001015663; EP 1207848 A1 Based on WO  
2001015663

PRAI DE 1999-19941360 19990831

IC ICM A61K007-48; A61K035-02

ICS A61K033-12; A61K033-14; A61K035-80; A61P039-00

AB DE 19941360 A UPAB: 20010515

NOVELTY - Agent for removing salts ('scale') and/or regeneration, for  
external application, contains argillaceous earth powder, sea salt,  
minerals, algae and ethereal oil.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

(a) salt removal and/or regeneration process, in which the agent is  
made into a slurry. This is applied to an article of **clothing**  
worn near the **surface** of the body and the **clothing** is  
worn;

(b) a kit consisting of an article of clothing, the agent and a  
dosing unit.

USE - The agent is used removing salts ('scale') and/or regeneration  
by external application.

ADVANTAGE - If the human body becomes over-acidified, it is robbed of  
essential minerals to neutralize the acid form. The resultant salts  
( 'scale') are deposited in fatty and connective tissue, muscles,  
cartilage, bones, joints, vessel walls, organs and the brain and cause  
various illnesses. Existing methods of treatment include tea, diet and  
minerals taken internally and baths, bandages and packs for external  
application. However, baths restrict activity and bandages can be  
difficult to fix in place. The present agent and method of application  
overcome these problems. The person remains mobile and even work or  
gymnastics is possible during treatment.

Dwg.0/0

FS CPI

FA AB

MC CPI: D08-B09A; D09-A01; D09-C; D09-C02; L02-G

L58. ANSWER 17 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2001-070769 [08] WPIX

DNN N2001-053587 DNC C2001-019656

TI **Fabrication** of dielectric **coated** metal flakes involves  
forming stack of dielectric coated metal layers comprising lower and upper  
dielectric layers, reflector layer, dissolving the release layers and  
fragmenting.

DC A60 D21 G01 G02 L01 L02 X25

IN MATTEUCCI, J S

PA (FLEX-N) FLEX PROD INC

CYC 23

PI WO 2000069975 A1 20001123 (200108)\* EN 41p C09C001-00

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: AU CA CN JP KR

AU 2000038693 A 20001205 (200113)

C09C001-00

ADT WO 2000069975 A1 WO 2000-US5869 20000307; AU 2000038693 A AU 2000-38693 20000307

FDT AU 2000038693 A Based on WO 2000069975

PRAI US 1999-312319 19990514

IC ICM C09C001-00

ICS C09C001-62; C09C001-64; C09C003-06

AB WO 200069975 A UPAB: 20010207

NOVELTY - A dielectric coated metal layer (10) comprising lower dielectric layer (12), reflector layer (14) and upper dielectric layer (16), is formed on release layer of web material. A stack of dielectric coated metal layers is formed by repeating the process. The metal layers are separated by dissolving the release layer in a solvent and fragmented to form several dielectric coated metal flakes.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for thin dielectric coated metal flakes comprising a reflector layer having thickness of 400-800 Angstrom, dielectric layers of silicon monoxide having 100-200 Angstrom thickness on upper and lower surface of reflector layer. The thickness of dielectric layers does not substantially affect the optical properties of reflector layer.

USE - As pigments for coating compositions, inks, paints, electrostatic coating, glass, ceramic and cosmetics.

ADVANTAGE - The metal flakes has improved reflective properties. Thin metal plates having increased rigidity and high resistance to environmental influences is obtained.

DESCRIPTION OF DRAWING(S) - The figure shows schematic cross section of dielectric coated metal layer.

Dielectric coated metal layer 10

Bottom dielectric layer 12

Reflector layer 14

Top dielectric layer 16

Dwg.1/5

FS CPI EPI

FA AB; GI

MC CPI: A08-E02; D08-B; G01-A; G01-A01; G01-A02; G01-A05; G01-A06; G01-A07; G01-A08; G01-A10; G02-A03D; G02-A04B; L01-G05; L01-G09; L02-G04  
EPI: X25-K01

L58 ANSWER 18 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2000-638095 [61] WPIX

CR 2002-328394 [36]; 2002-370871 [40]

DNN N2000-473313 DNC C2000-191852

TI New solid gel membrane useful in electrochemical devices e.g. metal/air, Zn/MnO<sub>2</sub>, Ni/Cd, smart windows and flat panel displays comprises an ionic species within the gel solution phase.

DC A18 A23 A26 A85 L03 P81 S03 U14 V07 X12 X16 X25

IN CHANG, Y; CHEN, M; LI, L; TOM, K; TSAI, T; YAO, W; KI, L

PA (REVE-N) REVEO INC; (CHEN-I) CHEN M; (LILL-I) LI L; (TSAI-I) TSAI T; (CHAN-I) CHANG Y; (TOMK-I) TOM K; (YAOW-I) YAO W

CYC 92

PI WO 2000051198 A2 20000831 (200061)\* EN 44p H01M006-22



RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
 OA PT SD SE SL SZ TZ UG ZW  
 W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
 LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
 TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000035030 A 20000914 (200063)

EP 1155467 A2 20011121 (200176) EN H01M006-22

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI

BR 2000008506 A 20020205 (200213) H01M006-22

US 6358651 B1 20020319 (200224) H01M002-16

CN 1341283 A 20020320 (200246) H01M006-22

TW 463405 A 20011111 (200248) H01M002-14

US 2002102465 A1 20020801 (200253) H01M010-40

KR 2002020873 A 20020316 (200263) H01M008-10

JP 2002538585 W 20021112 (200275) 46p H01M012-06

US 2003022047 A1 20030130 (200311) H01M012-06

US 2003099872 A1 20030529 (200337) H01M012-06

US 6605391 B2 20030812 (200355) H01M002-14

MX 2001008664 A1 20020201 (200362) B01D069-10

ADT WO 2000051198 A2 WO 2000-US4881 20000225; AU 2000035030 A AU 2000-35030  
 20000225; EP 1155467 A2 EP 2000-913617 20000225; WO 2000-US4881 20000225;  
 BR 2000008506 A BR 2000-8506 20000225; WO 2000-US4881 20000225; US 6358651  
 B1 CIP of US 1999-259068 19990226, US 2000-482126 20000111; CN 1341283 A  
 CN 2000-804335 20000225; TW 463405 A TW 2000-103224 20000224; US  
 2002102465 A1 CIP of US 1999-259068 19990226, Cont of US 2000-482126  
 20000111, US 2001-13016 20011130; KR 2002020873 A KR 2001-710896 20010825;  
 JP 2002538585 W JP 2000-601703 20000225, WO 2000-US4881 20000225; US  
 2003022047 A1 Div ex US 1999-259068 19990226, US 2002-186439 20020701; US  
 2003099872 A1 US 1999-259068 19990226; US 6605391 B2 US 1999-259068  
 19990226; MX 2001008664 A1 WO 2000-US4881 20000225, MX 2001-8664 20010824  
 FDT AU 2000035030 A Based on WO 2000051198; EP 1155467 A2 Based on WO  
 2000051198; BR 2000008506 A Based on WO 2000051198; US 2002102465 A1 Cont  
 of US 6358651; JP 2002538585 W Based on WO 2000051198; MX 2001008664 A1  
 Based on WO 2000051198

PRAI US 2000-482126 20000111; US 1999-259068 19990226; US 2001-13016  
 20011130; US 2002-186439 20020701

IC ICM B01D069-10; H01M002-14; H01M002-16; H01M006-22; H01M008-10;  
 H01M010-40; H01M012-06

ICS C08F251-00; C08F251-02; C08F257-02; C08F273-00; C08J005-22;  
 C08L051-02; G02F001-15; G02F001-153; H01B001-06; H01B001-12;  
 H01M002-18; H01M004-04; H01M004-42; H01M004-46; H01M008-02;  
 H01M010-26; H01M016-00

ICI C08L033:00

AB WO 2000051198 A UPAB: 20030928

NOVELTY - A polymer based solid gel membrane (1) contains an ionic species  
 within the gel solution phase. (1) comprises the polymerization product of  
 a polymerization initiator, a monomer selected from water soluble  
 ethylenically unsaturated amides and acids, and a reinforcing element  
 selected from water soluble and water swellable polymers. The ionic  
 species is added prior to polymerization.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (A) a rechargeable electrochemical cell comprises a separator, an anode, a cathode and a charging electrode. The cathode and charging electrode may be single bifunctional or individual and separate electrodes. The separator comprises an ion-conducting (1) comprising a support positioned between the anode and charging electrode; and (B) a method of inhibiting corrosion of a metal anode in a metal/air fuel cell system comprises a metal anode and an air cathode. The method comprises disposing at least one (1) between the anode and cathode. (1) is formed on a surface of metal anode.

USE - In power sources e.g. zinc/air, cadmium/air, lithium/air, magnesium/air, iron/air, aluminum/air (claimed). Zn/Ni, Zn/MnO<sub>2</sub>, Zn/AgO, Fe/Ni, lead-acid, Ni/Cd, alkaline hydrogen fuel cells, electrochromic devices such as smart windows and flat panel displays.

ADVANTAGE - The solid gel membranes are much easier, less expensive and function efficiently at room temperature as compared to prior art. The measured ionic conductivity is much higher as compared to prior art. The gel membrane protects anode from corrosion and prevents zinc oxidation product from the anode from contaminating the electrolyte.

DESCRIPTION OF DRAWING(S) - The figure shows a rechargeable metal/air battery having three electrodes, a porous spacer a solid gel membrane incorporated as a separator

metal anode 20  
air cathode 40  
porous spacer 50  
separator 60  
liquid aqueous electrolyte 80  
housing 90  
Dwg.6/7

FS CPI EPI GMPI

FA AB; GI

MC CPI: A02-A00A; A04-D01; A04-F04; A04-F05; A12-E09; A12-E11A; L03-E05  
EPI: S03-E03C; U14-K02; V07-K01A; V07-K04; X12-D01C; X16-A01B; X16-B01;  
X16-C; X16-D01; X16-F02; X25-U01

L58 ANSWER 19 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2000-475451 [41] WPIX

DNN N2000-354761 DNC C2000-142381

TI Nonwoven abrasive articles useful in finishing and leveling application has a rebulkable nonwoven web with a continuous sheet-like abrasive coating bonded to its first major surface.

DC A26 A88 F04 G02 L02 P61

IN CHOU, Y J; ERICKSON, J L; JONES, T L; WOO, E J

PA (MINN) 3M INNOVATIVE PROPERTIES CO

CYC 91

PI WO 2000037218 A1 20000629 (200041)\* EN 56p B24D003-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000021769 A 20000712 (200048) B24D003-00  
 EP 1140427 A1 20011010 (200167) EN B24D003-00  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE  
 US 6312484 B1 20011106 (200170) B24D003-02  
 JP 2002532274 W 20021002 (200279) 61p B24D011-00  
 ADT WO 2000037218 A1 WO 1999-US29483 19991213; AU 2000021769 A AU 2000-21769  
 19991213; EP 1140427 A1 EP 1999-966160 19991213, WO 1999-US29483 19991213;  
 US 6312484 B1 US 1998-218385 19981222; JP 2002532274 W WO 1999-US29483  
 19991213, JP 2000-589313 19991213  
 FDT AU 2000021769 A Based on WO 2000037218; EP 1140427 A1 Based on WO  
 2000037218; JP 2002532274 W Based on WO 2000037218  
 PRAI US 1998-218385 19981222  
 IC ICM B24D003-00; B24D003-02; B24D011-00  
 ICS B24D003-28; B24D011-02; C08J005-14; D04H001-54  
 ICI C08L101:00  
 AB WO 200037218 A UPAB: 20000831  
 NOVELTY - An abrasive article having a rebulkable nonwoven web and a  
 continuous sheet-like abrasive coating bonded to the first major surface  
 of the web. The abrasive coating comprises the abrasive particles  
 dispersed in a binder.  
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for making of  
 an abrasive article which comprises (a) providing a rebulkable nonwoven  
 web; (b) heating the web; (c) compressing the web to form a densified web  
 with at least one major surface; (d) coating the surface with an abrasive  
 slurry; (e) solidifying the binder to form a continuous sheet-like  
 abrasive coating bonded to the surface; and (f) heating the web to rebulk.  
 USE - In many finishing and leveling applications particularly useful  
 to level and/or blend repainted surfaces of automobiles; also for cleaning  
 e.g. removing food from a pan, stripping paint and surface conditioning  
 type abrasive applications.  
 ADVANTAGE - The abrasive article is quickly leveled and blend coated  
 repair areas with fewer scratches. The clear coat has bright appearance  
 after polishing.  
 Dwg.0/3  
 FS CPI GMPI  
 FA AB  
 MC CPI: A08-C08; A08-D05; A10-E01; A11-C01C; A12-A03; F02-C02B1; F03-E01;  
 G02-A05; G04-B04; L02-F01  
 L58 ANSWER 20 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
 AN 2000-351588 [31] WPIX  
 DNN N2000-263389 DNC C2000-107148  
 TI Thermal insulating sheet for use e.g. in sunblinds, sunshades and  
 greenhouse shading has a coating with high solar reflection and high  
 thermal emission on one side and a coating with low thermal emission on  
 the other.  
 DC A82 A93 F08 G02 Q67  
 IN HUGO, G  
 PA (HUGO-I) HUGO G  
 CYC 23  
 PI DE 19849330 A1 20000427 (200031)\* 11p F16L059-00  
 WO 2000024832 A1 20000504 (200031) DE C09D005-00

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
W: AU IL NZ SG US

AU 2000017698 A 20000515 (200039) C09D005-00

ADT DE 19849330 A1 DE 1998-19849330 19981026; WO 2000024832 A1 WO 1999-DE3428  
19991025; AU 2000017698 A AU 2000-17698 19991025

FDT AU 2000017698 A Based on WO 2000024832

PRAI DE 1998-19849330 19981026

IC ICM C09D005-00; F16L059-00

ICS C08J005-18; C08K003-00; C08K007-00

AB DE 19849330 A UPAB: 20000630

NOVELTY - Thermal insulating sheet comprising a base coated on one side with material showing high reflectivity for solar radiation in the wavelength range 0.25-2.5 microns plus high emissivity in the thermal infrared range (at least 5-50 microns) and on the other side with material showing an emissivity of less than 80% in the thermal IR (at least 5-25 microns).

DETAILED DESCRIPTION - A thermal insulation element in the form of sheet material comprising a base **fabric coated** on one side with material (A) which reflects at least 60 (preferably 70) % of solar radiation in the range 0.25-2.5 microns but shows an emissivity of more than 80 (at least more than 70) % in the thermal infrared range (2.5-100, or at least 5-50 microns) and on the other side with material (B) showing an emissivity of less than 80 (preferably less than 70) % in the range 2.5-50 (at least 5-25) microns

USE - As sunblinds and/or sunshades and/or sunscreens; also as thermal insulating foil for greenhouses and/or as plant protection film (claimed).

ADVANTAGE - Sheet material with a high reflectivity for solar radiation combined with a high level of emission for thermal radiation on one and a low level of emission for thermal radiation on the other side (facing the room etc.) This provides good protection from solar heat and also good protection from cold in buildings and greenhouses etc.

Dwg.0/0

FS CPI GMPI

FA AB

MC CPI: A12-B01W; A12-B01X; A12-R06; F03-E01; F04-E06; G02-A05

L58 ANSWER 21 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2000-207106 [19] WPIX

DNN N2000-154192 DNC C2000-064118

TI Recording material for production of lithographic printing plates comprises a base, a ceramic coating containing **aluminum oxide** with a silicate compound as binder, and a light-sensitive layer.

DC A14 A26 A89 G07 P74 P75 P84

IN ALLEN, E; BRENK, M; ALLEN, E D

PA (GEVA) AGFA-GEVAERT AG; (GEVA) AGFA-GEVAERT GMBH; (GEVA) AGFA-GEVAERT

CYC 27

PI DE 19839454 A1 20000302 (200019)\* 11p G03F007-11

EP 992342 A2 20000412 (200023) DE B41C001-10

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

KOROMA EIC1700

JP 2000203172 A 20000725 (200040) 9p B41N001-14  
 US 6240846 B1 20010605 (200133) B41N001-08  
 ADT DE 19839454 A1 DE 1998-19839454 19980829; EP 992342 A2 EP 1999-116515  
 19990824; JP 2000203172 A JP 1999-241572 19990827; US 6240846 B1 US  
 1999-377154 19990819

PRAI DE 1998-19839454 19980829

IC ICM B41C001-10; B41N001-08; B41N001-14; G03F007-11

ICS B41N001-00; B41N003-00; G03F007-09

AB DE 19839454 A UPAB: 20000419

NOVELTY - A recording material consisting of a base with a ceramic coating and a light-sensitive layer, in which the ceramic layer comprises a silicate compound and **aluminum oxide** with at least 99.6 weight% Al and the ceramic layer is bonded to the base by the silicate compound acting as binder.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a process for the production of this material, in which an aqueous dispersion of **aluminum oxide** and a silicate compound, alone or together with titanium and/or silicon dioxide, is applied to the base by means of a flow device, a roller or a doctor blade and then dried for 50-80 seconds at 150-220 deg. C.

USE - For the production of lithographic printing plates (claimed).

ADVANTAGE - Enables the production of a recording material with a permanently bonded, hydrophilic ceramic **layer** with a **textured surface**. This **layer** replaces the conventional method based on electrochemical surface roughening followed by anodizing, which is very energy-intensive and gives rise to waste products requiring further processing before disposal. Printing plates made from this new material enable long print runs with little or no color fogging.

Dwg.0/0

FS CPI GMPI

FA AB

MC CPI: A12-W07B; A12-W12G; G05-A01; G06-A01; G06-A06

L58 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

AN 1999:467977 CAPLUS

DN 131:103477

ED Entered STN: 30 Jul 1999

TI **Textile surface coatings** of iron oxide and aluminum oxide

IN Kuhn, Hans H.; Kang, Peter K.

PA Milliken & Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM B05D003-02

NCL 427190000

CC 40-5 (Textiles and Fibers)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI US 5928720 A 19990727 US 1998-7687 19980115  
 PRAI US 1998-7687 19980115  
 AB A method of **coating** a **textile** substrate comprises (a) contacting a **textile** substrate with an aqueous solution of a ferrous or ferric salt and salt of Al at pH .apprx.2.5 or greater, wherein the aqueous solution optionally comprises a compound which produces ammonia by hydrolysis in aqueous solution, a buffering and pH controlling system, and a dispersing agent; (b) heating the solution to .apprx.50° to .apprx.100°; (c) hydrolyzing and oxidizing the ferrous ion, or hydrolyzing the ferric ion, to form an iron (III) oxide hydroxide and hydrolyzing the Al ion to form an **aluminum oxide hydroxide**, nucleating the iron (III) **oxide hydroxide** and **aluminum oxide hydroxide** in situ at the surface of the substrate, wherein the oxide hydroxides are present as particles which are sub-colloidal in size, thereby forming a substantially amorphous coherent iron (III) **oxide hydroxide/aluminum oxide hydroxide** coating on the substrate surface; wherein the resultant rates of adsorption onto the substrate surface of the oxide hydroxides are greater than the resultant rates of formation of the same oxide hydroxides. The obtained substrate has very good color fastness, **bacteriostatic**, and virus removing properties and can be utilized as an **water filtration** article. Thus, a coating on a polyester **fabric** was prepared from a solution containing Mohr's salt 15, Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>·18H<sub>2</sub>O 3.75, urea 10, formic acid 2.5, ammonium formate 2.64, and Rhodacal BX-78 1.2 g at pH .apprx.3.1.

ST **aluminum iron hydroxide oxide** coating  
 polyester **fabric**; **water filter** coated  
 polyester **fabric**

IT **Antibacterial** agents  
 Buffers  
 Coating materials  
 Dispersing agents  
**Filters**  
 (solns. containing aluminum and iron salts and ammonia-releasing agents and buffers and dispersing agents for formation of coatings of iron oxide and aluminum oxide on **fabrics**)

IT Natural **fibers**  
 Polyester **fibers**, uses  
 Synthetic **fibers**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (solns. containing aluminum and iron salts and ammonia-releasing agents and buffers and dispersing agents for formation of coatings of iron oxide and aluminum oxide on **fabrics**)

IT 25417-20-3, Rhodacal BX-78  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Rhodacal BX-78, dispersing agents; solns. containing aluminum and iron salts and ammonia-releasing agents and buffers and dispersing agents for formation of coatings of iron oxide and aluminum oxide on **fabrics**)

IT 1310-14-1P, Goethite 10043-01-3P, Aluminum sulfate 11115-92-7P  
 , Iron oxide hydroxide 21645-51-2P,  
 Aluminum hydroxide, uses 24623-77-6P, Aluminum

oxide hydroxide 113957-80-5P, Aluminum iron  
hydroxide oxide

RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)

(solns. containing aluminum and iron salts and ammonia-releasing  
agents and buffers and dispersing agents for formation of coatings of  
iron oxide and aluminum oxide on fabrics)

IT 7664-41-7, Ammonia, uses

RL: NUU (Other use, unclassified); USES (Uses)

(solns. containing aluminum and iron salts and ammonia-releasing agents and  
buffers and dispersing agents for formation of coatings of iron oxide  
and aluminum oxide on fabrics)

IT 57-13-6, Urea, reactions 64-18-6, Formic acid, reactions 540-69-2,  
Ammonium formate 10045-89-3, Mohr's salt

RL: RCT (Reactant); RACT (Reactant or reagent)

(solns. containing aluminum and iron salts and ammonia-releasing agents and  
buffers and dispersing agents for formation of coatings of iron oxide  
and aluminum oxide on fabrics)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; EP 887387 1998 CAPLUS
- (2) Blagev; US 5641470 1997 CAPLUS
- (3) Clough; US 5290589 1994 CAPLUS
- (4) Cornell, R; Clay Minerals 1983, V18, P209 CAPLUS
- (5) Cornell, R; The Iron Oxides 1996, P38
- (6) Farrah; US 5432077 1995 CAPLUS
- (7) Gerhardt, P; Methods for General and Molecular Biology 1994, P254
- (8) Gupta; US 3734683 1973 CAPLUS
- (9) Imamura; US 3958066 1976 CAPLUS
- (10) Ino; US 4882183 1989 CAPLUS
- (11) Ishino; US 4515850 1985
- (12) Kenney; US 3657003 1972 CAPLUS
- (13) Kenney; US 3767590 1973 CAPLUS
- (14) Kuhn; US 4803096 1989 CAPLUS
- (15) Lown; US 5650131 1997 CAPLUS
- (16) Matijevic, E; Journal of Colloid and Interface Science 1978, V63(3), P509  
CAPLUS
- (17) Matsui; US 4457973 1984
- (18) Modly; US 4624710 1986 CAPLUS
- (19) Oishi; US 4911957 1990
- (20) Parida, K; Journal of Colloid and Interface Science 1996, V178, P586  
CAPLUS
- (21) Schwertmann, U; Iron Oxides in the Laboratory 1991, P71
- (22) Snustad, P; Genetics Experiments with Bacterial Viruses 1971, P1
- (23) van Leeuwen; US 4473617 1984
- (24) Watanabe; US 4435220 1984 CAPLUS
- (25) Wienand; US 4101689 1978
- (26) Yamada; US 4743505 1988

L58 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:658650 CAPLUS

DN 131:274205

KOROMA EIC1700

ED Entered STN: 15 Oct 1999  
 TI Alkaline batteries, alkaline battery separators, and their manufacture  
 IN Kurosumi, Tadatoshi; Hiromoto, Kazuhiko  
 PA Showa Denko K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM H01M002-16  
 ICS H01M002-16; H01M010-24  
 CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11283604	A2	19991015	JP 1998-84498	19980330
PRAI	JP 1998-84498		19980330		

AB Separators comprising substrates consisting of or containing polyolefins with metal oxides, hydroxides, and/or oxyhydroxides fixed on the substrates are claimed. Alkaline batteries comprising the separators are also claimed. The separators are manufactured by contacting the substrates with solns. containing colloidal metal compds. for their deposition on the substrates. The separators are capable of retaining large amount of electrolytes.

ST alk battery separator polyolefin supported; polyolefin supported metal compd battery separator; colloidal coating polyolefin battery separator

IT Rare earth compounds

RL: DEV (Device component use); USES (Uses)  
 (hydroxide oxides; manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT Rare earth compounds

RL: DEV (Device component use); USES (Uses)  
 (hydroxides; manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT Primary battery separators

(manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT Rare earth oxides

RL: DEV (Device component use); USES (Uses)  
 (manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT Polyolefin **fibers**

Polypropene **fibers**, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
 (nonwoven **fabric**; manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT Nonwoven **fabrics**

(polyolefin; manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT 1306-19-0, Cadmium oxide, uses 1309-42-8, Magnesium hydroxide

1309-48-4, Magnesium oxide, uses 1312-43-2, Indium oxide 1313-99-1,



Nickel oxide (NiO), uses 1314-13-2, Zinc oxide, uses 1314-36-9, Yttrium oxide, uses 1332-29-2, Tin oxide 1332-37-2, Iron oxide, uses 1335-25-7, Lead oxide 1343-98-2, Silicic acid 1344-28-1, Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), uses 1344-69-0, Copper hydroxide 1344-70-3, Copper oxide 7631-86-9, Silicon oxide, uses 11104-61-3, Cobalt oxide 11113-66-9, Iron hydroxide 11115-92-7, Iron oxyhydroxide 11118-57-3, Chromium oxide 11129-60-5, Manganese oxide 12016-80-7, Cobalt oxyhydroxide 12054-48-7, Nickel hydroxide 12626-43-6, Chromium hydroxide 12626-88-9, Manganese hydroxide 12672-51-4, Cobalt hydroxide 12673-77-7, Silver hydroxide 12710-11-1, Magnesium hydroxide oxide 12710-12-2, Manganese oxyhydroxide 16469-22-0, Yttrium hydroxide 19783-14-3, Lead hydroxide 20427-58-1, Zinc hydroxide 20661-21-6, Indium hydroxide 20667-12-3, Silver oxide 20770-05-2, Chromium oxyhydroxide 21041-95-2, Cadmium hydroxide 21645-51-2, Aluminum hydroxide, uses **24623-77-6, Aluminum hydroxide oxide** 39311-68-7, Tin hydroxide 39377-65-6, Zinc hydroxide oxide 55070-72-9, Nickel hydroxide oxide 66120-59-0, Cadmium hydroxide oxide 148522-99-0, Tin hydroxide oxide 156166-35-7, Yttrium hydroxide oxide 183078-77-5, Copper hydroxide oxide 245762-02-1, Silver hydroxide oxide 245762-03-2, Lead hydroxide oxide 245762-05-4, Indium hydroxide oxide

RL: DEV (Device component use); USES (Uses)

(manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT 7705-08-0, Iron trichloride, processes 10124-36-4, Cadmium sulfate 13138-45-9, Nickel dinitrate

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

IT 9002-88-4, Polyethylene 25085-53-4, Isotactic polypropylene

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(nonwoven **fabric**; manufacture of alkaline battery separators comprising polyolefin supports carrying colloidal metal compds.)

L58 ANSWER 24 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:184343 CAPLUS

DN 130:200719

ED Entered STN: 22 Mar 1999

TI **Filter** paper for purification of **water**

PA Oeste, Franz Dietrich, Germany; Haas, Rainer

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM B01J020-28

ICS C02F001-28; B01D029-07; A47J031-08

CC 61-5 (Water)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19834916	A1	19990311	DE 1998-19834916	19980803

KOROMA EIC1700

	DE 29824242	U1	20001109	DE 1998-29824242	19980803
	DE 29824168	U1	20010125	DE 1998-29824168	19980803
	DE 29824500	U1	20010523	DE 1998-29824500	19980803
PRAI	DE 1997-29716118	U1	19970909		
	DE 1997-19750124	A1	19971113		
	DE 1998-19805992	A1	19980215		
	DE 1998-19817395	A1	19980420		
	DE 1998-19834916	IA	19980803		
AB	<p><b>Filter</b> paper, e.g., coffee <b>filters</b>, is impregnated with ferric oxide or other <b>iron oxides</b> and <b>hydroxides</b>, manganese <b>oxides</b> and <b>hydroxides</b>, <b>aluminum oxides</b>, long-chain carboxylic acids and/or their insol. salts, and/or humic acids and/or their insol. salts to provide a <b>filter</b> for removal of heavy metals such as As. The paper may be impregnated with a chemical precursor and then treated to obtain the desired salt. The method is simple and provides an inexpensive, simple method of removing contaminants from water.</p>				
ST	<b>filter</b> paper <b>water</b> purifn				
IT	Humic acids				
	RL: NUU (Other use, unclassified); USES (Uses) (calcium salts; <b>filter</b> paper for purification of <b>water</b> )				
IT	Carboxylic acids, reactions				
	Humic acids				
	RL: RCT (Reactant); RACT (Reactant or reagent) ( <b>filter</b> paper for purification of <b>water</b> )				
IT	Heavy metals				
	RL: REM (Removal or disposal); PROC (Process) ( <b>filter</b> paper for purification of <b>water</b> )				
IT	<b>Water</b> purification				
	(filtration; <b>filter</b> paper for purification of <b>water</b> )				
IT	Humic acids				
	RL: RCT (Reactant); RACT (Reactant or reagent) (sodium salts, brown coal-derived; <b>filter</b> paper for purification of <b>water</b> )				
IT	7647-14-5, Sodium chloride, processes				
	RL: FMU (Formation, unclassified); REM (Removal or disposal); FORM (Formation, nonpreparative); PROC (Process) ( <b>filter</b> paper for purification of <b>water</b> )				
IT	1309-37-1, Ferric oxide, uses				
	RL: NUU (Other use, unclassified); USES (Uses) ( <b>filter</b> paper for purification of <b>water</b> )				
IT	1309-33-7, Iron hydroxide (Fe(OH)3)				
	1310-73-2, Sodium hydroxide, reactions 1313-13-9, Manganese oxide, reactions 1317-35-7, Manganese oxide 1317-61-9, Iron oxide, reactions 1344-28-1, Alumina, reactions 1344-43-0, Manganese oxide, reactions 7705-08-0, Ferric chloride, reactions 10043-52-4, Calcium chloride, reactions 12626-88-9, Manganese hydroxide				
	RL: RCT (Reactant); RACT (Reactant or reagent) ( <b>filter</b> paper for purification of <b>water</b> )				
IT	7439-92-1, Lead, processes				
	7440-02-0, Nickel, processes 7440-38-2, Arsenic, processes 7440-50-8, Copper, processes				

RL: REM (Removal or disposal); PROC (Process)  
(filter paper for purification of water)

L58 ANSWER 25 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN  
AN 1999-277501 [23] WPIX  
DNN N1999-208004 DNC C1999-081579  
TI Abrasive articles for abrading a wide range of hard materials.  
DC A14 A21 A23 A28 A60 A81 A88 G03 L02 P61  
IN BURGESS, R M; OMAR, M N A; SCHANKWEILER, H; OMAR, M  
PA (MINN) MINNESOTA MINING & MFG CO; (MINN) 3M INNOVATIVE PROPERTIES CO  
CYC 23  
PI WO 9919116 A1 19990422 (199923)\* EN 19p B24D018-00  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
W: CA JP KR RU US  
EP 1021275 A1 20000726 (200037) EN B24D018-00  
R: DE FR GB IT  
KR 2001031022 A 20010416 (200163) B24D018-00  
JP 2001519250 W 20011023 (200202) 23p B24D011-00  
US 6372001 B1 20020416 (200232) B24D003-06  
EP 1021275 B1 20020828 (200264) EN B24D018-00  
R: DE FR GB IT  
DE 69807511 E 20021002 (200273) B24D018-00  
ADT WO 9919116 A1 WO 1998-US20048 19980923; EP 1021275 A1 EP 1998-949487  
19980923, WO 1998-US20048 19980923; KR 2001031022 A KR 2000-703830  
20000408; JP 2001519250 W WO 1998-US20048 19980923, JP 2000-515730  
19980923; US 6372001 B1 WO 1998-US20048 19980922, US 2000-509625 20000330;  
EP 1021275 B1 EP 1998-949487 19980923, WO 1998-US20048 19980923; DE  
69807511 E DE 1998-607511 19980923, EP 1998-949487 19980923, WO  
1998-US20048 19980923  
FDT EP 1021275 A1 Based on WO 9919116; JP 2001519250 W Based on WO 9919116; US  
6372001 B1 Based on WO 9919116; EP 1021275 B1 Based on WO 9919116; DE  
69807511 E Based on EP 1021275, Based on WO 9919116  
PRAI GB 1997-21494 19971009  
IC ICM B24D003-06; B24D011-00; B24D018-00  
ICS B24D003-00; B24D011-02  
AB WO 9919116 A UPAB: 20021105  
NOVELTY - An abrasive article exhibiting improved delamination resistance  
comprises a fabric having discrete areas of electro-deposited metal and  
abrasive material embedded in the metal.

DETAILED DESCRIPTION - An abrasive article comprises an abrasive  
fabric comprising a fabric having discrete areas of electro-deposited  
metal extending on or through, an abrasive material embedded in the metal.  
The abrasive fabric is bonded to the backing substrate by an adhesive  
layer where: (i) the **surface** of the abrasive **fabric** is  
bonded to the backing has been roughened; and/or (ii) the layer of  
adhesive comprises an epoxy-acrylate thermosetting adhesive.

INDEPENDENT CLAIMS include: (a) a method of making an abrasive  
article comprising bonding an abrasive fabric to a backing substrate with  
a layer of adhesive, where the surface of the abrasive is roughened prior  
to contacting the layer of adhesive; (b) the above method, where the  
adhesive comprises an epoxy-acrylate thermosetting adhesive; and (c) an  
abrasive material.

USE - Used in the form of belts, discs, pads and blocks etc. for abrading a wide range of hard materials including metals, glass, and stones such as granite, marble etc.

ADVANTAGE - Exhibits improved delamination resistance of the metal deposits which results in longer lifetime and improved cutting rates for the abrasive articles.

Dwg.1/1

FS CPI GMPI

FA AB; GI

MC CPI: A04-F06E6; A05-A01E3; A07-A04A; A07-A04C; A07-A04E; A08-D; A12-A03;  
G03-B02D1; G03-B02E; L02-F03; L02-F05; L02-J01

L58 ANSWER 26 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1999-399962 [34] WPIX

DNN N1999-299436 DNC C1999-118032

TI Glass composition of substrate for magnetic disk or magneto- optical disk - comprises **oxide(s)** of calcium, **aluminium**, silicon, manganese, barium, strontium, zinc, titanium, yttrium, lanthanum, iron, chromium, etc..

DC L03 T03 W04

PA (SECS-N) SEC KK

CYC 1

PI JP 11157867 A 19990615 (199934)\* 4p C03C003-062

ADT JP 11157867 A JP 1997-336547 19971121

PRAI JP 1997-336547 19971121

IC ICM C03C003-062

ICS G11B005-62; G11B007-24; G11B011-10

AB JP 11157867 A UPAB: 19990825

NOVELTY - The glass composition comprises calcium **oxide**, **aluminium oxide** and silicon dioxide in a weight ratio of 2:1:2. The composition further comprises 0-10 parts each of magnesium oxide, barium oxide, strontium oxide, zinc oxide, titanium dioxide, yttrium **oxide**, lanthanum **oxide**, **iron oxide**, chromium **oxide**, nickel **oxide**, vanadium pentoxide, copper oxide, silver oxide, manganese dioxide and manganese trioxide, 0-15 parts zirconium oxide, 0-5 parts silver oxide and antimony oxide.

USE - For substrates of magnetic disks, magneto-optical disks and digital video disks used in large computers and personal computers.

ADVANTAGE - Glass with very high strength, chemical durability and capable of high density recording is obtained. The glass substrate is reliable as it lacks alkali and has laser **texture** property. A disk with **surface** roughness of 10 A or less is obtained.

Dwg.0/0

FS CPI EPI

FA AB

MC CPI: L03-B05B; L03-B05F; L03-B05L

EPI: T03-A01; T03-B01; T03-D; W04-C01; W04-D

L58 ANSWER 27 OF 47 WORLD TEXTILES COPYRIGHT 2004 Elsevier Science B.V. on STN

AN 1999:1981206 WTEXTILES

TI Textile surface coatings of iron oxide and aluminium oxide  
 IN Milliken and Company; Kuhn H.H.; Kang P.K.  
 SO Official Gazette of the U.S. Patent and Trademark Office - Patents,  
 (1999), 1224/4  
 ISSN: 0098-1133  
 PI US 5928720  
 DT Journal; Patent  
 CY United States  
 LA English  
 AV EMDOCS  
 AB A textile substrate is provided which is coated with a film comprising  
 iron (III) **oxide hydroxide** and **aluminum**  
**oxide hydroxide**. This film or coating is formed by  
 contacting the textile substrate with an aqueous solution comprising  
 ferrous or ferric salts and aluminum salts. The iron (II), iron (III),  
 and aluminum ions are hydrolyzed and the iron (II) ions are also oxidized  
 under controlled conditions. These hydrolyzed species then, it is  
 believed, coprecipitate or copolymerize to on the textile surface to form  
 a smooth, coherent, substantially amorphous iron (III) **oxide/**  
**aluminum oxide hydroxide** film or coating on  
 the surface of the substrate without forming an insoluble iron (III) or  
 aluminum hydroxide precipitate in the solution. This is accomplished by  
 controlling the reaction conditions such that the rates of adsorption  
 onto the substrate surface of both iron (III) and **aluminum**  
**oxide hydroxides** are greater than the rates of  
 formation of said same oxide hydroxide particles. The resultant coating  
 is substantially amorphous with extremely limited crystalline formation.  
 The obtained substrate has very good color fastness, bacteriostatic, and  
 virus removing properties and can be utilized as an inexpensive and  
 effective water filtration article. IPC B05D.  
 CC 75.41 FINISHING: PATENTS  
 CT absorption; chemical composition; coating; coating agent; colorfastness;  
 copolymerization; filtration; liquid; physical property

L58 ANSWER 28 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1998:352776 CAPLUS  
 DN 129:56081  
 ED Entered STN: 11 Jun 1998  
 TI Nanostructured oxides and hydroxides and methods for their synthesis  
 IN Xiao, Tongsan D.; Strutt, Peter R.; Kear, Bernard H.; Chen, Huimin; Wang,  
 Donald M.  
 PA University of Connecticut, USA; Rutgers the State University of New Jersey  
 SO PCT Int. Appl., 69 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C01B013-34  
 ICS C01G053-04; C01G045-02; C01G025-02  
 CC 49-3 (Industrial Inorganic Chemicals)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI	WO 9822387	A1	19980528	WO 1997-US21141	19971118
	W: CA, CN, JP, KR, RU				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2243441	AA	19980528	CA 1997-2243441	19971118
	EP 876295	A1	19981111	EP 1997-949485	19971118
	R: DE, FR, GB				
	CN 1209789	A	19990303	CN 1997-191769	19971118
	JP 2000505040	T2	20000425	JP 1998-519800	19971118
	RU 2194666	C2	20021220	RU 1998-115315	19971118
	TW 448132	B	20010801	TW 1997-86117328	19980206
	US 6517802	B1	20030211	US 2000-663876	20000915
PRAI	US 1996-31355P	P	19961118		
	US 1996-31672P	P	19961122		
	US 1997-39888P	P	19970305		
	US 1997-971817	A3	19971117		
	WO 1997-US21141	W	19971118		
AB	A chemical process for obtaining nanostructured materials, comprising spray atomization of a reactant solution into a precursor solution to form a nanostructured oxide or hydroxide ppt. is described. The precipitate is then heat-treated followed by sonication, and/or heat treatment. This process yields nanostructured doped and undoped nickel hydroxide, manganese dioxide, and yttria-stabilized zirconia. Unusual morphol. superstructures may be obtained, including well-defined cylinders or nanorods, as well as a novel structure in nickel hydroxide and manganese dioxide, comprising assemblies of nanostructured <b>fibers</b> , assemblies of nanostructured <b>fibers</b> and agglomerates of nanostructured particles, and assemblies of nanostructured <b>fibers</b> and nanostructured particles. These novel structures have high percolation rates and high densities of active sites, rendering them particularly suitable for catalytic applications.				
ST	nanostructured oxide hydroxide manuf				
IT	Crystal structure				
	Materials				
	(nanostructured oxides and hydroxides and methods for their synthesis)				
IT	Oxides (inorganic), preparation				
	Synthetic <b>fibers</b>				
	RL: IMF (Industrial manufacture); PREP (Preparation)				
	(nanostructured oxides and hydroxides and methods for their synthesis)				
IT	Platinum-group metals				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(nanostructured oxides and hydroxides and methods for their synthesis)				
IT	Rare earth oxides				
	RL: PEP (Physical, engineering or chemical process); PROC (Process)				
	(nanostructured oxides and hydroxides and methods for their synthesis)				
IT	Rare earth salts				
	RL: PEP (Physical, engineering or chemical process); PROC (Process)				
	(nanostructured oxides and hydroxides and methods for their synthesis)				
IT	Salts, processes				
	RL: PEP (Physical, engineering or chemical process); PROC (Process)				
	(nanostructured oxides and hydroxides and methods for their synthesis)				
IT	Synthetic <b>fibers</b>				
	RL: IMF (Industrial manufacture); PREP (Preparation)				

(yttrium-stabilized zirconium oxide; nanostructured oxides and hydroxides and methods for their synthesis)

IT Synthetic fibers

RL: IMF (Industrial manufacture); PREP (Preparation)

(zirconia; nanostructured oxides and hydroxides and methods for their synthesis)

IT 7440-06-4, Platinum, uses

RL: MOA (Modifier or additive use); USES (Uses)

(nanostructured oxides and hydroxides and methods for their synthesis)

IT 497-19-8, Sodium carbonate, processes 1309-48-4, Magnesium oxide, processes 1313-13-9, Manganese dioxide, processes 1314-13-2, Zinc oxide, processes 1314-23-4, Zirconia, processes 1314-35-8, Tungsten oxide, processes 1314-36-9, Yttrium oxide, processes 1332-37-2, Iron oxide, processes 1344-28-1, Aluminum oxide, processes 1344-70-3, Copper oxide 7631-86-9, Silicon oxide, processes 7699-43-6, Zirconyl chloride 7718-54-9, Nickel chloride, processes 7722-64-7, Potassium permanganate 7785-87-7, Manganese sulfate 7786-81-4, Nickel sulfate 10141-05-6, Cobalt nitrate 10361-92-9, Yttrium chloride 11098-99-0, Molybdenum oxide 11099-11-9, Vanadium oxide 11104-61-3, Cobalt oxide 12054-48-7, Nickel hydroxide 12688-15-2, Zirconium hydroxide 13138-45-9, Nickel nitrate 13453-79-7, Lithium permanganate 13463-67-7, Titanium oxide, processes 13473-90-0, Aluminum nitrate 18933-05-6, Manganese hydroxide 20667-12-3, Silver oxide

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(nanostructured oxides and hydroxides and methods for their synthesis)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Energy Conversion Devices Inc; WO 9701509 A 1997 CAPLUS
- (2) Int Gas Detectors Ltd; GB 2066963 A 1981 CAPLUS
- (3) Nikko Rica Co Ltd; EP 0649818 A 1995 CAPLUS

L58 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:219771 CAPLUS

DN 128:284215

ED Entered STN: 18 Apr 1998

TI Aluminum hydroxide and silica from kaolinite-group clay minerals

IN McLaughlin, Robert James

PA McLaughlin Geosurveys Pty. Ltd., Australia; McLaughlin, Robert James

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C01F007-46

ICS C01F007-02; C01F007-34; C01B033-148; C01B033-18; C01B033-187

CC 49-3 (Industrial Inorganic Chemicals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9814401	A1	19980409	WO 1997-AU636	19970925
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				

KOROMA EIC1700

DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9742905 A1 19980424 AU 1997-42905 19970925

AU 715866 B2 20000210

EP 938452 A1 19990901 EP 1997-918842 19970925

R: DE, FR, GB, IE

NZ 333581 A 20000728 NZ 1997-333581 19970925

US 6153157 A 20001128 US 1998-214584 19981231

PRAI AU 1996-2640 A 19960930

WO 1997-AU636 W 19970925

- AB Kaolinite clay minerals are converted to a relatively pure form of aluminum hydroxide and silica by (a) heating the kaolinite minerals to >500°C, causing dehydroxylation of the crystallog. lattice and formation of an intermediate meta-kaolin; (b) reacting the intermediate with a reagent selected from acids (e.g., 10% H<sub>2</sub>SO<sub>4</sub>), bases or metalliferous compds. followed by heating the mixture to form an aluminum salt in solution and a silica residue; (c) separation of the aluminum salt solution from the silica residue by **filtration** and further treatment of the silica residue to produce a relatively pure form of fine particulate silica; (d) formation of alum by addition of an ammonium sulfate solution to the aluminum salt solution and further treatment of the alum to produce a relatively pure form of aluminum hydroxide.
- ST silica prodn kaolinite group clay mineral; aluminum hydroxide prodn kaolinite clay mineral; kaolinite clay mineral aluminum hydroxide silica
- IT Alums  
 RL: FMU (Formation, unclassified); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent)  
 (aluminum hydroxide and silica from kaolinite-group clay minerals)
- IT Kaolinite-group minerals  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (aluminum hydroxide and silica from kaolinite-group clay minerals)
- IT Mica-group minerals, processes  
 RL: REM (Removal or disposal); PROC (Process)  
 (aluminum hydroxide and silica from kaolinite-group clay minerals)
- IT 7784-26-1, Ammonium alum 15123-81-6, Meta kaolinite  
 RL: FMU (Formation, unclassified); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent)  
 (aluminum hydroxide and silica from kaolinite-group clay minerals)
- IT 1344-28-1P, Alumina, preparation 7631-86-9P, Silica, preparation 21645-51-2P, Aluminum hydroxide, preparation  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (aluminum hydroxide and silica from kaolinite-group clay minerals)
- IT 631-61-8, Ammonium acetate  
 RL: NUU (Other use, unclassified); USES (Uses)



(aluminum hydroxide and silica from kaolinite-group clay minerals)  
IT 1318-45-2, Dickite 1336-21-6, Ammonium hydroxide 7664-93-9, Sulfuric acid, reactions 7783-20-2, Ammonium sulfate, reactions 12068-50-7, Halloysite 12279-65-1, Nacrite  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(aluminum hydroxide and silica from kaolinite-group clay minerals)  
IT 1332-37-2, **Iron oxide**, processes  
RL: REM (Removal or disposal); PROC (Process)  
(**aluminum hydroxide** and silica from kaolinite-group clay minerals)  
IT 1318-74-7, Kaolinite, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(kaolinite pM, kaolinite T; aluminum hydroxide and silica from kaolinite-group clay minerals)  
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) As Ukr Gen Inorg Ch; SU 213005 1975 CAPLUS  
(2) English Clays Lovering Pochin & Company Ltd; GB 1222823 1971 CAPLUS  
(3) Garcia, C; US 4342729 1982 CAPLUS  
(4) Gruzensky; US 4388280 1983 CAPLUS  
(5) Huang; US 4069296 1978 CAPLUS  
L58 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1998:258354 CAPLUS  
DN 128:261561  
ED Entered STN: 07 May 1998  
TI Monitoring raw water quality and adjustment of treatment processes - experiences at Wahnbach Reservoir  
AU Hoyer, Oluf; Schell, Helmut  
CS Wahnachtalsperrenverband, Siegburg, D 5309, Germany  
SO Water Science and Technology (1998), 37(2, Reservoir Management and Water Supply: An Integrated System), 43-48  
CODEN: WSTED4; ISSN: 0273-1223  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
CC 61-5 (Water)  
Section cross-reference(s): 10, 53  
AB Online monitoring of turbidity allows effective control of source and finished water quality. Fundamentals of particle destabilization and removal are outlined and use of the charge titration method for optimal online adjustment of flocculant dosage is presented.  
ST **water** purifn sedimentation flocculation **filtration**;  
monitoring turbidity online water purifn; coliform **bacteria**  
turbidity online monitoring reservoir  
IT **Water** purification  
(**filtration**; online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir, Germany)  
IT Water purification  
(flocculation; online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir,

Germany)

IT Suspended sediment  
(geol., aquatic; online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir, Germany)

IT Coliform **bacteria**  
Turbidity  
(online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir, Germany)

IT Water purification  
(settling; online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir, Germany)

IT Aquatic sediments  
(suspended; online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir, Germany)

IT 11115-92-7, Iron oxy hydroxide 24623-77-6,  
**Aluminum hydroxide oxide**  
RL: MOA (Modifier or additive use); USES (Uses)  
(coagulant; online monitoring of raw and treated water quality to adjust treatment processes and remove particles at Wahnbach Reservoir, Germany)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bernhardt, H; GWF-Wasser/Abwasser 1996, V137, P109 CAPLUS
- (2) Bernhardt, H; J Am Water Works Assoc 1982, V74, P261 CAPLUS
- (3) Bernhardt, H; J Water SRT - Aqua 1996, V45, P19 CAPLUS
- (4) Bernhardt, H; Wat Sci Tech 1993, V27(10), P35 CAPLUS

L58 ANSWER 31 OF 47 TEXTILETECH COPYRIGHT 2004 Inst. of Textile Technology  
on STN

AN 621578 TEXTILETECH

DN 199900827

TI Microgels, **Filter** Index and End Breakage Rate of Polyamide 6.

AU Kaufmann S.; Hoffrichter S.; Vorbach R.

CS Thuringian Inst. for Textile and Plastic Res. - Rudolstadt

SO Chemical Fibers International, 48, No. 5: 412+, 2 pages (Oct. 1998).

Reference(s): 6 refs.

CODEN: CFINF7

DT Journal

LA English

AB Researchers investigated the conditions under which microgels form; the relationship between microgels, **filter** index, and end breakage rate; and the relationship between metal oxides, **filter** index, and end breakage rate. An experiment simulated crosslinking reactions for the synthesis of microgel containing model granulate via tempering and formalization. The addition of gelled chips to the ordinary granulate did not increase the **filter** index significantly. Microgels led to a rapid increase in the end breakage rate. The addition of metal **oxide** hydrates (**iron** or **aluminum oxide** hydrate) and of metal **oxides** (**iron**,

oxide, or manganese oxide) did not result in gelation of ordinary granulate. Hard gels reduced the service life of the spinneret plates.

CC A2 Manmade fibers  
 SH 3820 POLYMERS AND POLYMERIZATION: gelation, gels, indexes (ratios), metal oxides, nylon 6 polymers  
 CT ALUMINUM; ALUMINUM COMPOUNDS; AMIDES; CROSSLINKING; EXPERIMENTATION; **FILTERS**; GELS; GRAPHS CHARTS; INDEXES RATIOS; **IRON**; LIFE; MANGANESE COMPOUNDS; METALS; MODELS; NYLON POLYMERS; OXIDES; POLYMERIZATION; POLYMERS; RATES; REDUCTION; RESEARCH; SIMULATION; SPINNERETS; SYNTHESIS; **TEXTILE RESEARCH**

L58 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:532447 CAPLUS

DN 127:137133

ED Entered STN: 21 Aug 1997

TI Manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility

IN Sakota, Mineko; Morii, Hiroko; Rinichi, Itaru; Tsunoda, Hiroshi

PA Toda Kogyo Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09C001-24

ICS C09C003-06

CC 42-6 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 09165531	A2	19970624	JP 1995-348047	19951214
	JP 3214542	B2	20011002		
PRAI	JP 1995-348047		19951214		

AB The title pigments especially useful in road paints are prepared by heating yellow

iron oxide hydrate (e.g., goethite) in an aqueous alkali of pH  $\geq 10$ , **filtering**, washing with **water** to soluble sulfate salt content (as SO<sub>4</sub>)  $\leq 2000$  ppm; heating with an aqueous acid of pH  $\leq 4$  and **filtering**, and washing with **water** to soluble sodium salt content (as Na)  $\leq 1000$  ppm; adjusting the resulting high-purity iron oxide hydrate aqueous dispersion to pH  $\geq 10$  or  $\leq 4$ , stirring with an Al compound (e.g., Na aluminate), then adjusting to pH 5-9.

ST **iron oxide hydroxide** yellow pigment;  
 goethite heat resistant pigment aluminum coated; road paint aminoalkyd yellow pigment

IT Aminoplasts

Aminoplasts

RL: TEM (Technical or engineered material use); USES (Uses)

(alkyd resin-; manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)

- IT Alkyd resins  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(amino-containing, Amilac 1026; manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)
- IT Alkyd resins  
Alkyd resins  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aminoplast-; manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)
- IT Heat-resistant materials  
Pigments, nonbiological  
(manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)
- IT Coating materials  
(road paints; manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)
- IT 139-12-8, Aluminum acetate 11138-49-1, Sodium aluminate  
RL: MOA (Modifier or additive use); USES (Uses)  
(manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)
- IT 1310-14-1, Goethite  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(manufacture of heat-resistant yellow iron **oxide** hydrate pigments coated with **aluminum hydroxide** with good dispersibility)

L58 ANSWER 33 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1995-209569 [28] WPIX

DNN N1995-164211 DNC C1995-096820

TI Vibration-proof rubber sheet wrapped round compressor - comprises nonwoven **fabric coated** on one side with pressure sensitive adhesive, attached to butyl rubber base containing paraffinic or naphthenic oil.

DC A88 F08 P73 Q75

PA (KOYO) KOYO SANGYO CO LTD

CYC 1

PI JP 07120106 A 19950512 (199528)\* 3p F25B041-00

ADT JP 07120106 A JP 1993-289869 19931027

PRAI JP 1993-289869 19931027

IC ICM F25B041-00

ICS B32B025-10; C09J007-02

AB JP 07120106 A UPAB: 19950721

A vibration-proof rubber sheet comprises on one side a nonwoven **fabric** having only one side **coated** with a pressure sensitive adhesive, attached to a rubber base comprising paraffinic or

KOROMA EIC1700

naphthenic gp. oil and an inorganic filler such as calcium carbonate, barium sulphate, **iron oxide**, **aluminium** hydroxide, mica, carbon, etc. compounded with butyl rubber via another adhesive.

Also claimed is the sheet prepared by applying a blocking preventive paint to one side of the base and attaching the other, adhesive non-coated side via another adhesive.

USE - Used for an air-conditioner compressor.

ADVANTAGE - Heat resistance is improved.

Dwg.1/3

FS CPI GMPI

FA AB; GI

MC CPI: A04-G05A; A08-P08; A08-R01; A11-C01C; A11-C04A; A12-H09; F02-C01; F03-D01; F03-E01; F04-E

L58 ANSWER 34 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1992-324283 [40] WPIX

DNN N1992-247831 DNC C1992-144136

TI Brick coloured camouflage pigment formulation - containing anthraquinone black, **iron oxide** pigments, titanium di **oxide** and **aluminium** hydroxide silicate.

DC E22 E37 G02 Q79

IN BUECHNER-HOTZLER, W

PA (BUND) BUNDESREPUBLIK DEUT; (NAVO-N) NAT VOLKSARMEE

CYC 1

PI DD 299738 A7 19920507 (199240)\* 4p C09D005-30

ADT DD 299738 A7 DD 1981-227683 19810217

PRAI DD 1981-227683 19810217

IC ICM C09D005-30

ICS F41H003-00

AB DD 299738 A UPAB: 19931115

Brick-coloured pigment formulation, for colouring dummies and camouflage for deception and imitation, consists of a combination of 0.1-8.0 pts. anthraquinone black, 10.0-35.0 pts. alpha-Fe<sub>2</sub>O<sub>3</sub>, 10.0-35.0 pts. alpha-Fe oxide hydrate, 25.0-75.0 pts. TiO<sub>2</sub>, 15.0-45.0 pts. Al hydroxide silicate and opt. 0.1-6.0 pts. Fe<sub>3</sub>O<sub>4</sub> and other conventional inorg. and/or organic coloured and white pigments.

USE/ADVANTAGE - The formulation is useful in paint for dummies of military targets, e.g. brickwork. This can be used as exterior and interior paint on wood, concrete, steel, brickwork, **cloth** and PVC-coated tarpaulins, asphalt, asbestos cement panels, plaster and paving stones. It has good resistance to weathering and wear and leads to both visual and photographic misinterpretation

Dwg.0/1

FS CPI GMPI

FA AB; DCN

MC CPI: E22-C; E31-P02D; E35-K02; E35-U02; G01-A05; G01-A08; G01-A10; G02-A03A

L58 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:414017 CAPLUS

DN 117:14017

ED Entered STN: 11 Jul 1992

TI Laboratory investigations on the role of sediment surface and groundwater chemistry in transport of **bacteria** through a contaminated sandy aquifer

AU Scholl, Martha A.; Harvey, Ronald W.

CS Water Resour. Div., U. S. Geol. Surv., Menlo Park, CA, 94025, USA

SO Environmental Science and Technology (1992), 26(7), 1410-17  
CODEN: ESTHAG; ISSN: 0013-936X

DT Journal

LA English

CC 61-2 (Water)

AB The effects of pH and sediment surface characteristics on sorption of indigenous groundwater **bacteria** were determined using contaminated and uncontaminated aquifer material from Cape Cod, Massachusetts. Over the pH range of the aquifer (5-7), the extent of **bacterial** sorption onto sediment in uncontaminated groundwater was strongly pH-dependent, but relatively pH-insensitive in contaminated groundwater from the site. **Bacterial** sorption was also affected by the presence of oxyhydroxide coatings (Fe, Al, and Mn). Surface coating effects were most pronounced in uncontaminated groundwater (pH 6.4 at 10°). Desorption of attached **bacteria** ( $\leq 14\%$  of the total number of labeled cells added) occurred in both field and laboratory expts. upon adjustment of groundwater to pH 8. The dependence of **bacterial** sorption upon environmental conditions suggests that **bacterial** immobilization could change substantially over relatively short distances in contaminated, sandy aquifers and that effects caused by changes in groundwater geochem. can be significant.

ST **bacteria** transport contaminated aquifer sediment; pollution groundwater **bacteria** transport

IT Organic matter  
Chlorides, occurrence  
Nitrates, occurrence  
Sulfates, occurrence  
RL: OCCU (Occurrence)  
(in groundwater, **bacteria** transport in contaminated aquifer sediments in relation to)

IT Environmental transport  
(of **bacteria**, in contaminated aquifer, sediment surface and groundwater chemical effect on)

IT Sorption  
(of **bacteria**, on contaminated aquifer sediments, factors affecting)

IT Water pollution  
(of groundwater, **bacteria** transport in contaminated aquifer sediments in relation to)

IT **Bacteria**  
(transport of, in contaminated sandy aquifer, groundwater chemical and sediment surface effect on)

IT Geological sediments  
(aquifer, surface characteristics of, **bacteria** transport in relation to)

IT 11115-92-7, Iron oxyhydroxide 12710-12-2, Manganese oxyhydroxide

24623-77-6, Aluminum hydroxide oxide  
(Al(OH)O)

RL: OCCU (Occurrence)

(aquifer sediment coated with, **bacteria** transport in,  
groundwater pollution in relation to)

IT 7439-95-4, Magnesium, occurrence 7440-09-7, Potassium, occurrence  
7440-23-5, Sodium, occurrence 7440-70-2, Calcium, occurrence

RL: OCCU (Occurrence)

(in groundwater, **bacteria** transport in contaminated aquifer  
sediments in relation to)

L58 ANSWER 36 OF 47 WORLD TEXTILES COPYRIGHT 2004 Elsevier Science B.V. on  
STN

AN 1992:1926022 WTEXTILES

TI Dyed mixed knit fabric and method for its manufacture

IN Toyo Boseki KK; Ido Y.; Chiba S.; Arimatsu Y.; Suzuki H.; Shimizu T.  
SO 1992, (1992)

Priority Information: 10 June 1992 Priority application: Japan,  
406307/90, 5 December 1990

PI EP 489395

DT Journal; Patent; Patent

LA English

AV UMIST Library

AB The claim concerns a method for dyeing a knitted fabric consisting of at  
least a polyurethane elastomer fibre, a nylon fibre and/or a  
cationic-dyeable polyester fibre. The polyurethane elastomer fibre  
contains at least one or more of the following compounds: magnesium  
**oxide**; zinc **oxide**; aluminium **oxide**;  
magnesium **hydroxide**; zinc **hydroxide**;  
aluminium **hydroxide**; and hydrotalcite compounds in a  
proportion of 0.5-4.5 weight per cent based on the weight of the fibre.  
IPC D06P.

CT dyeing; polyester fibres, cationic-dyeable; fabrics, knitted;  
nylon/polyester/polyurethane elastomer fabrics, knitted;  
nylon/polyurethane elastomer fabrics, knitted; dyeing assistants

L58 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:503480 CAPLUS

DN 109:103480

ED Entered STN: 17 Sep 1988

TI Manufacture of iron magnetic powder

IN Munechika, Tetsue; Watabe, Yoshitane; Murakami, Akira; Ota, Isao; Tsunoda,  
Makoto; Takagi, Shigeru

PA Nissan Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H01F001-06

ICS B22F009-22; G11B005-712

CC 77-8 (Magnetic Phenomena)

FAN.CNT 1

KOROMA EIC1700

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63067705	A2	19880326	JP 1986-212119	19860909
PRAI	JP 1986-212119		19860909		
AB	Needle- or spindlelike goethite or hematite surfaces are treated with Al phosphate and then reduced to give a magnetic powder. Si oxide hydrate, Al oxide hydrate, and/or Ni hydroxide may also be coated with Al phosphate. A highly-dispersible powder, useful for coatings, is prepared. An aqueous pH 11 dispersion of goethite was mixed with Al phosphate colloid, washed, <b>filtered</b> , and reduced to give magnetic powder, which was prepared into a coating material and applied on a PET film to give a magnetic tape having excellent magnetic characteristics.				
ST	goethite magnetic powder surface treatment; recording magnetic iron powder				
IT	Recording materials				
	(magnetic, iron powder, preparation of)				
IT	Recording apparatus				
	(magnetic tapes, manufacture of)				
IT	7439-89-6P, preparation				
	RL: PREP (Preparation)				
	(preparation of powder of, for magnetic recording)				
IT	1309-37-1, Ferric oxide, uses and miscellaneous 11115-92-7, Iron hydroxide oxide				
	RL: PROC (Process)				
	(surface treatment of, with aluminum phosphate, in preparation of magnetic powder for recording materials)				
IT	1344-28-1, Alumina, uses and miscellaneous 7631-86-9, Silica, uses and miscellaneous 11113-74-9				
	RL: PRP (Properties)				
	(treatment with, of aluminum phosphate-treated iron oxide powder, in preparation of magnetic powder for recording materials)				
IT	98499-64-0, Aluminum phosphate				
	RL: PRP (Properties)				
	(treatment with, of iron oxide powder, in preparation of magnetic powder for recording materials)				
L58	ANSWER 38 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN				
AN	1988:440171 CAPLUS				
DN	109:40171				
ED	Entered STN: 05 Aug 1988				
TI	Permeable porous mineral membranes				
IN	Charpin, Jean; Grangeon, Andre; Pejot, Francis; Plurien, Pierre; Rasneur, Bernard; Richard, Serge; Veyre, Rene				
PA	Commissariat a l'Energie Atomique, Australia				
SO	Pat. Specif. (Aust.), 45 pp.				
	CODEN: ALXXAP				
DT	Patent				
LA	English				
IC	ICM B01D013-04				
	ICS B01D059-14; B32B018-00				
CC	48-1 (Unit Operations and Processes)				
FAN.CNT	1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE



PI	AU 570297	B2	19880310	AU 1985-38443	19850205
	AU 8538443	A1	19860814		
PRAI	AU 1985-38443		19850205		

AB The title membranes are formed by the precipitation of  $\geq 1$  mineral compound from a liquid suspension of particles ( $< 10 \mu\text{m}$ ) of the compound or its precursor as a thin layer on a porous permeable substrate, followed by drying and calcining at  $400-1100^\circ$ . The mineral compound comprises a single or mixed metal oxide or hydroxide, a metal fluoride, or mixture of these. A filler can be included in the suspension, especially C. A permeable membrane comprising a  $3 \text{ Al}_2\text{O}_3 \cdot \text{MgO}$  spinel structure layer was formed by deposition of a peptized Al-Mg hydroxide gel (Al/Mg ratio 6:1) by slip painting on the inner surface of an  $\alpha\text{-Al}_2\text{O}_3$  substrate (pore radius  $0.4 \mu\text{m}$ ). The film was dried at ambient temperature in 60% humidity for 15 h, then calcined at  $850^\circ$  for 1 h. The membrane had pore radius  $70 \text{ \AA}$ , and exhibited a N permeability of  $3.8 + 10^{-7} \text{ mol/cm}^2\text{-min-cm Hg}$ . The membranes are suitable for the separation and enrichment of gases, **filtration**, and ultrafiltration.

ST mineral membrane; **filter** ultra mineral membrane; aluminum magnesium oxide membrane

IT Membranes

(mineral, preparation of)

IT **Filtering** materials

(membranes, mineral, preparation of)

IT 9002-89-5, Polyvinyl alcohol

RL: USES (Uses)

(binder, in mineral membranes)

IT 7440-44-0, Carbon, uses and miscellaneous

RL: USES (Uses)

(filler, in mineral membranes)

IT 7601-90-3, Perchloric acid, uses and miscellaneous 7647-01-0,  
Hydrochloric acid, uses and miscellaneous

RL: USES (Uses)

(in aluminum hydroxide membrane preparation)

IT 7439-89-6D, **Iron, oxides and hydroxides**

7440-50-8D, Copper, **oxides and hydroxides**

RL: USES (Uses)

(in **aluminum oxide or hydroxide**  
membranes)

IT 3085-30-1, Aluminum butylate 7440-65-5D, Yttrium, salts 13746-89-9,  
Zirconium nitrate 14798-03-9, Ammonium, uses and miscellaneous

23355-24-0, Titanium butylate 23519-77-9

RL: USES (Uses)

(in mineral membrane preparation)

IT 142-72-3, Magnesium acetate 10034-81-8, Magnesium perchlorate

RL: USES (Uses)

(in mixed metal-aluminum hydroxide membrane preparation)

IT 1312-81-8 1314-36-9, uses and miscellaneous 11099-11-9, Vanadium oxide  
(unspecified)

RL: USES (Uses)

(in titanium or zirconium or silicon oxide membranes)

IT 7429-90-5DP, **Aluminum, oxides and hydroxides**

7439-95-4DP, Magnesium, oxides and hydroxides 7439-96-5DP, Manganese, oxides and hydroxides 7440-02-0DP, Nickel, oxides and hydroxides 7440-21-3DP, Silicon, oxides and hydroxides 7440-32-6DP, Titanium, oxides and hydroxides 7440-48-4DP, Cobalt, oxides and hydroxides 7440-67-7DP, Zirconium, oxides and hydroxides 7440-70-2DP, Calcium, oxides and hydroxides 7783-40-6P, Magnesium fluoride

RL: SPN (Synthetic preparation); PREP (Preparation)

(membranes, preparation of)

IT 1344-28-1, Alumina, uses and miscellaneous

RL: USES (Uses)

( $\alpha$ -, porous substrate for mineral membranes)

L58 ANSWER 39 OF 47 JICST-EPlus COPYRIGHT 2004 JST on STN

AN 890027540 JICST-EPlus

TI Development of ladle arc refining process.

AU FUJIMOTO HIDEAKI; SOEJIMA TOSHIYUKI; MATSUMOTO HIROSHI; MATSUI HIDEO; MAEDA SHINICHI

MIMURA TSUYOSHI; OGAWA KANEHIRO

CS Kobe Steel, Ltd., Kakogawa Mfg. Steel Works

Kobe Steel, Ltd., Materials Res. Labs.

SO Tetsu to Hagane (Journal of the Iron and Steel Institute of Japan), (1988) vol. 74, no. 10, pp. 1962-1969. Journal Code: F0332A (Fig. 18, Tbl. 1, Ref. 12)

CODEN: TEHAA2; ISSN: 0021-1575

CY Japan

DT Journal; Article

LA Japanese

STA New

AB In order to meet the recent demands for higher quality steels and rationalization in manufacturing processes, the ladle refining technology has advanced remarkably. Kakogawa works installed the ladle refining furnace (LF) in January 1986 for the stable production of high-grade steel and to decrease the thermal burden in the LD converter. This equipment is capable of arc heating, strong top agitation, and slag skimming. Furthermore, combining this equipment with the existing hot metal pretreatment and RH degassing equipment has made possible the production of low phosphorous and sulfur content steel. Also, the production technology of clean steels such as steel tire-cord has been established by making the shape control of non-metallic inclusions through the ladle slag refining. (author abst.)

CC WD01060A (669.18)

CT ladle steelmaking; arc heating; top blowing; vapor-liquid agitation; sulfur; content; tire cord; steel wire; phase diagram; slag; molten steel; clean steel; silicon dioxide; calcium oxide; **aluminum oxide**; manganese oxide; **iron oxide**; basicity(ratio); refractory; nonmetallic inclusion; erosion(wear); metallurgical desulfurizing

BT secondary steelmaking; steelmaking; manufacturing; refining(metallurgy); after-furnace treatment; treatment; electric heating; heating; electric power application; utilization; blowing(injection); agitation; mixing; oxygen group element; element; third row element; cord(**textile**); tire structure; metal wire; metallic material; linear object; steel

product; diagram and table; molten metal; liquid metal; liquid; metal; steel; iron and steel; silicon oxide; silicon compound; carbon group element compound; oxide; chalcogenide; oxygen group element compound; oxygen compound; calcium compound; alkaline earth metal compound; metal oxide; aluminum compound; 3B group element compound; manganese compound; 7A group element compound; transition metal compound; iron compound; iron group element compound; degree; ceramics; inclusion(object); object; erosion(corrosion); corrosion; desulfurization; removal

L58 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1987:416863 CAPLUS  
 DN 107:16863  
 ED Entered STN: 11 Jul 1987  
 TI The effect of inorganic particulates on the ASV signals of cadmium, lead, and copper  
 AU Aualiitia, T. U.; Pickering, W. F.  
 CS Chem. Dep., Univ. Newcastle, Newcastle, 2308, Australia  
 SO Talanta (1987), 34(2), 231-7  
 CODEN: TLNTA2; ISSN: 0039-9140  
 DT Journal  
 LA English  
 CC 79-6 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 72  
 AB The potential influence of inorg. particulates on the anodic stripping voltammetry (ASV) response of <100-μg/L levels of Cd, Pb, and Cu, at a thin film Hg electrode, was examined by adding various wts. of the solids to the acetate background electrolyte solution. Materials added included the hydrous oxides of Mn(IV), Fe(III), or Al(III), clay minerals (kaolinite, illite, montmorillonite) and some contaminated sediments. Abrasion of the Hg film was minimized by deaerating the turbid solns. before their transfer to the measuring cell. The hydrous oxides specifically sorbed all 3 metal ions, resulting in peak-size changes that varied in magnitude with pH. With the clays, only sorption of Pb by illite or montmorillonite was detected. The presence of the solids had little effect on the peak position or half-peak breadth of the Cd or Pb signals, but the Cu peak parameters changed, indicating some hydroxy-species formation at higher pH. Some contaminated sediment samples released a significant fraction of their total metal content into acetate buffer solns. Shielding the Hg film with a semipermeable membrane had a similar effect to **filtering** the suspension before anal., but diffusion equilibrium was only slowly achieved (>12 h).  
 ST anodic stripping voltammetry cadmium lead copper; inorg particulate effect stripping voltammetry  
 IT Fulvic acids  
 Humic acids  
 RL: ANST (Analytical study)  
 (interference by, in anodic stripping voltammetry of cadmium and copper and lead)  
 IT Geological sediments  
 (estuarine, interference by, in anodic stripping voltammetry of cadmium and copper and lead)  
 IT 7439-92-1, Lead, analysis 7440-43-9, Cadmium, analysis 7440-50-8,

Copper, analysis

RL: ANST (Analytical study)

(anodic stripping voltammetry of, effect of inorg. particulates on)

IT 1310-14-1, Goethite 1318-74-7, Kaolinite, uses and miscellaneous

1318-93-0, Montmorillonite, uses and miscellaneous 11115-92-7

11139-78-9 12173-60-3, Illite 12207-14-6, Jarosite

12325-71-2, Cryptomelane 26088-58-4 108727-25-9

RL: ANST (Analytical study)

(interference by, in anodic stripping voltammetry of cadmium and copper and lead)

L58 ANSWER 41 OF 47 JICST-EPlus COPYRIGHT 2004 JST on STN

AN 870181591 JICST-EPlus

TI Corrosion of basic bricks by various secondary steelmaking slags.

AU ENDO ISAMU; KAWAKAMI TATSUO; TAKAHASHI HIROSHI; TSUCHIYA ICHIRO; ISHII HIROAKI

CS Kawasaki Refractories Co., Ltd.

SO Taikabutsu (Refractories), (1987) vol. 39, no. 349, pp. 101-102. Journal

Code: F0515A (Fig. 4, Tbl. 2)

ISSN: 0039-8993

CY Japan

DT Journal; Short Communication

LA Japanese

STA New

CC YC04030N; WD01070L (666.76; 669.162.2)

CT scouring; slag; magnesia-carbon brick; chrome-magnesite brick; erosion(wear); basicity(ratio); **iron oxide**; alumina; calcium oxide; corrosion resistance

BT **textile** finishing; finishing; fire brick; refractory; ceramics; brick; magnesite refractory; basic refractory; erosion(corrosion); corrosion; degree; metal oxide; oxide; chalcogenide; oxygen group element compound; oxygen compound; iron compound; iron group element compound; transition metal compound; **aluminum oxide**; aluminum compound; 3B group element compound; calcium compound; alkaline earth metal compound; resistance(endure)

L58 ANSWER 42 OF 47 JICST-EPlus COPYRIGHT 2004 JST on STN

AN 850022664 JICST-EPlus

TI Red clay dyeing test.

AU AKATSUKA YOSHINORI; NISHI KETSUZO; MISAO RIICHI; NIIMURA TAKAYOSHI; NISHIMOTO AKINORI; SHIRAKU HIDENOBU

CS Kagoshima Ken Oshimatsumugi Technology Res. and Guidance Center

SO Kagoshimaken Oshima Tsumugi Gijutsu Shido Senta Gyomu Hokokusho, (1984) vol. 1983, pp. 43-49. Journal Code: Z0443A (Fig. 1, Tbl. 2)

CY Japan

DT Journal; Article

LA Japanese

STA New

CC YM06040Q (677.027.4/.5)

CT Amami Islands; silk; silk **fabric**; yarn dyeing; inorganic pigment; red mud; dyeability; color fastness; chromaticity; hue; coloring(phenomenon); product development; pH dependence; **aluminum**

oxide; calcium oxide; **iron oxide**; silicon dioxide; content; microbiological reaction

BT Kagoshima; Kyushu District; Japan; East Asia; Asia; animal fiber; protein fiber; fiber; natural fiber; woven **fabric**; **fabric**; **textile** product; product; dyeing; pigment(paint); property; degree; development; dependence; aluminum compound; 3B group element compound; metal oxide; oxide; chalcogenide; oxygen group element compound; oxygen compound; calcium compound; alkaline earth metal compound; iron compound; iron group element compound; transition metal compound; silicon oxide; silicon compound; carbon group element compound; reaction

L58 ANSWER 43 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1983-00807K [01] WPIX

DNC C1983-000793

TI Colouring and rust-preventive adhesive film production - by coating one side of e.g. nonwoven fabric with adhesive containing metal (salt) powder and printing other side with decorative pattern.

DC A97 G03 M14

PA (INOUE-I) INOUE T

CYC 1

PI JP 57187378 A 19821118 (198301)\* 3p

PRAI JP 1981-72172 19810515

IC C09D005-10; C09J007-02

AB JP 57187378 A UPAB: 19930925

Superfine powder of at least one of **iron oxide**, zinc, **aluminium**, stainless steel, red lead, lead suboxide, zinc oxide, lead cyanamide, basic lead chromate, zinc chromate and barium-zinc chromate, is blended into adhesive material with good resistance to water and weathering. The mixture is coated or impregnated on both sides of nonwoven fabric, consisting of pulp, rayon, polyester, etc. or very fine flexible film of PVC, polypropylene, polyester, etc.

The adhesive material may be formed into sheet and the sheet protected with a separator on one side, the powder being attached to the other side by scattering. The non-tacky surface is then coated or printed with phthalic acid, polyurethane or PVC-based flexible coating or printing ink to form a coloured decorative pattern.

The rust-preventing adhesive film is readily attached to metal surfaces by simple pressing.

FS CPI

FA AB

MC CPI: A12-A05; A12-B04; G02-A05E; G03-B02C; M14-K

L58 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1980:219962 CAPLUS

DN 92:219962

ED Entered STN: 12 May 1984

TI Fire-resistant building materials

IN Tsurushige, Norimitsu; Yamada, Shinichi; Tasaka, Takio

PA Otsuka Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

KOROMA EIC1700

LA Japanese  
 IC B32B005-28  
 CC 58-5 (Cement and Concrete Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54158486	A2	19791214	JP 1978-60503	19780519
PRAI	JP 1978-60503		19780519		

AB Fire-resistant building materials having porosity 7-35%, and high waterproofness and flexibility are made by uniting nets with a mixture of 80-95 parts minerals containing Al(OH)3, Mg(OH)2, MgCO3, Fe(OH)3, Fe2O3, and/or MnO2 and 5-20 parts thermoplastic resin or rubber. Thus, a mixture containing Al(OH)3 225, Fe2O3 75, 45% C2H4-vinyl acetate resin [24937-78-8] emulsion 28.9, acrylic acid ester resin emulsion 26, and water 40 parts was thinly applied to a steel plate, and a glass **fiber** net was laminated on it, coated with the above mixture, dried at 80° for 25 min, and compressed at 160° and 100 kg/cm2 for 10 min to obtain a fire-resistant material having d. 1.65 g/cm3, porosity 23.3%, and high waterproofness.

ST fire resistant building material; acrylate polymer fireresistant steel plate; acetate copolymer fireresistant steel plate; ethylene copolymer fireresistant steel plate; glass **fiber** fireresistant steel plate; aluminum hydroxide fireresistant steel plate; iron oxide fireresistant steel plate

IT Glass **fibers**, uses and miscellaneous  
 RL: USES (Uses)  
 (in fire-resistant building materials, from **aluminum hydroxide** and **iron oxide**)

IT Building materials  
 (fire-resistant, from **aluminum hydroxide**, with **iron oxide** and acetate copolymers and acrylate polymer)

IT 1309-37-1, uses and miscellaneous  
 RL: USES (Uses)  
 (in fire-resistant building materials, containing aluminum hydroxide)

IT 21645-51-2, uses and miscellaneous  
 RL: USES (Uses)  
 (in fire-resistant building materials, containing iron oxide)

IT 79-10-7D, esters, polymers 24937-78-8  
 RL: USES (Uses)  
 (in fire-resistant building materials, from **aluminum hydroxide** and **iron oxide**)

L58- ANSWER 45 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1978:444678 CAPLUS

DN 89:44678

ED Entered STN: 12 May 1984

TI Stable iron oxide pigment

IN Abe, Nobuyoshi; Kubo, Shigenaga; Kanemaru, Mareyoshi; Kozu, Shozo

PA Nippon Chemical Industrial Co., Ltd., Japan; Toho Ganryo Kogyo Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

KOROMA EIC1700

DT Patent  
LA Japanese  
IC C09C001-24  
CC 36-6 (Plastics Manufacture and Processing)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53043729	A2	19780420	JP 1976-118517	19761004
	JP 54007295	B4	19790405		
PRAI	JP 1976-118517		19761004		

AB Yellow or red Fe<sub>2</sub>O<sub>3</sub> or black Fe<sub>3</sub>O<sub>4</sub> as a  $\leq 30\%$  aqueous slurry is treated with an aqueous Al salt or alumina sol or an aqueous Sb or Ti salt to coat the Fe oxide with 0.1-5% (calculated as oxide) of the corresponding Al, Sb, or Ti hydroxide, made alkaline, heated, and treated with an aqueous alkali silicate or

aqueous silica sol to coat the hydroxide-coated Fe oxide with 3-20% micro noncryst. SiO<sub>2</sub> at SiO<sub>2</sub>-MmOn (M = Al, Sb, Ti) ratio 1-100:1 to give acid-, H<sub>2</sub>S-, and heat-resistant pigments. Thus, 1000 parts of a 12.5% aqueous slurry of yellow Fe<sub>2</sub>O<sub>3</sub>, prepared by air oxidation of aqueous FeSO<sub>4</sub>, was stirred with

126 parts 1.5% aqueous Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> and adjusted to pH 6.0 to coat the slurry particles with 1.5% (as Al<sub>2</sub>O<sub>3</sub>) Al(OH)<sub>3</sub>. The resulting slurry was adjusted to pH 10-10.5, mixed 30 min with 200 parts 5% aqueous water glass and 231 parts 2.2 aqueous H<sub>2</sub>SO<sub>4</sub> (to maintain the above pH) to coat the hydroxide-coated slurry particles with 8.0% SiO<sub>2</sub>, adjusted to pH 6.5, decanted, washed, **filtered**, dried 6 h at 90-5°, and powdered to give a pigment, which exhibited good or excellent acid, H<sub>2</sub>S, and heat resistances by itself or in PVC [9002-86-2].

ST **aluminum hydroxide coated iron oxide**  
; antimony **hydroxide coated iron oxide**;  
titanium **hydroxide coated iron oxide**; silica  
coated iron oxide; iron oxide pigment modified; acid resistance iron oxide pigment; hydrogen sulfide resistance iron oxide; heat resistance iron oxide pigment; PVC iron oxide pigmented; ferric oxide pigment modified

IT Pigments  
(**iron oxides**, coatings for, metal  
**hydroxides** and silica as, for improved stability)

IT Acid-resistant materials  
Heat-resistant materials  
(metal **hydroxide-** and silica-coated **iron oxide pigments**)

IT Coating materials  
(metal **hydroxides** and silica, for **iron oxide pigments**, for improved stability)

IT 7631-86-9, uses and miscellaneous 21645-51-2, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, for iron oxide pigments, for improved stability)

IT 9002-86-2  
RL: USES (Uses)  
(pigments for, metal **hydroxide-** and silica-coated **iron oxide as**)

IT 1309-37-1, uses and miscellaneous 1317-61-9, uses and miscellaneous  
 RL: USES (Uses)  
 (pigments, coated with metal hydroxides and silica for improved stability)  
 IT 7783-06-4, properties  
 RL: PRP (Properties)  
 (resistance to, of **iron oxide** pigments, metal **hydroxide** and silica coatings for improved)

L58 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1978:460546 CAPLUS  
 DN 89:60546  
 ED Entered STN: 12 May 1984  
 TI Heat-stabilized iron oxide pigments for poly(vinyl chloride)  
 IN Shimazawa, Keisuke; Sawai, Hisao; Mura, Yoshiaki  
 PA Toda Kogyo Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC C08K009-02  
 CC 36-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53036538	A2	19780404	JP 1976-112295	19760917
PRAI	JP 1976-112295		19760917		

AB Powdered Fe oxide is dispersed in water containing 0.5-5% (based on Fe<sub>2</sub>O<sub>3</sub>) alkali

silicate at pH >9, the pH is adjusted to 6-7 to precipitate silica on the Fe oxide, alkali aluminate is added at pH >11, the pH is adjusted to 6-7 to precipitate Al(OH)<sub>3</sub> on the silica-coated Fe oxide which is washed and dried to give a pigment having good heat stability. Thus, 2 kg Fe<sub>2</sub>O<sub>3</sub> powder was dispersed in 10 L H<sub>2</sub>O containing 60 g water glass at pH 10, the pH was adjusted to 6.0 with 2N H<sub>2</sub>SO<sub>4</sub>, 30 g NaAlO<sub>2</sub> was added (pH 11.5), the pH was adjusted to 6.5 with 2N H<sub>2</sub>SO<sub>4</sub> and the solids were **filtered** and washed to give a pigment. A composition of PVC [9002-86-2] 100, dioctyl phthalate 50, Cd stearate 0.2, Ba stearate 0.2, heat stabilizer 2, and the above pigment 2 g was rolled to give test pieces having discoloration time in air at 180° 110 min, compared with 45 min for a similar composition containing untreated Fe<sub>2</sub>O<sub>3</sub>.

ST PVC pigment iron oxide; heat stability pigment PVC; alumina silica coating pigment  
 IT Coating process  
 (of **iron oxide** pigments, with **aluminum hydroxide** and silica, for increased heat stability in PVC)  
 IT 7631-86-9, uses and miscellaneous  
 RL: USES (Uses)  
 (**iron oxide** pigments coated with **aluminum hydroxide** and, for increased heat stability in PVC)  
 IT 21645-51-2, uses and miscellaneous  
 RL: USES (Uses)



(iron oxide pigments coated with silica and, for increased heat stability in PVC)

IT 9002-86-2

RL: USES (Uses)

(pigments for, aluminum **hydroxide**- and silica-coated **iron oxide**, for increased heat stability)

IT 1309-37-1, uses and miscellaneous

RL: USES (Uses)

(pigments, coating of, with aluminum hydroxide and silica, for increased thermal stability in PVC)

L58 ANSWER 47 OF 47 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1978=54458A [30] WPIX

TI Exothermal flux material for continuous casting process - contains silica and sodium mon **oxide**, Gp-I metal nitrate, **iron oxide**, **aluminium** (alloy) and/or calcium (alloy) and fluorspar.

DC M22 P53

PA (KOBM) KOBE STEEL LTD

CYC 1

PI JP 53070039 A 19780622 (197830)\*

JP 56044929 B 19811022 (198147)

PRAI JP 1976-145416 19761202

IC B22D011-10; C21C007-00

AB JP 53070039 A UPAB: 19930901

An exothermic flux material for continuous casting process comprises a compsn of (a) 30-60 wt % of slag base agent containing mainly SiO<sub>2</sub> and Na<sub>2</sub>O, (b) 5-15 weight % of alkali metal nitrate salt, (c) 5-15 weight% of **iron oxide**, (d) <=12 weight% of **Al** (alloy) and/or 1-6 weight% of Ca (alloy) and (e) <=30 weight% of fluorspar-CaF<sub>2</sub> or <=15 weight% of alkali metal carbonate.

The surface of the steel casting produced by using the flux compsn. is free from spiculate slag or scale or flaw caused with sand and has very smooth **superficial texture**.

FS CPI GMPI

FA AB

MC CPI: M22-G03A

=>